Trade Centers of the Upper Midwest:

Three Case Studies Examining Changes from 1960 to 1989

by Barbara Lukermann, Miriam Goldfein, and Sandra de Montille

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PREFACE

These three case studies expand on an earlier work—*Trade Centers of the Upper Midwest: Changes from 1960 to 1989*—published by CURA in November 1990. That study was based on an earlier study, written by John R. Borchert and Russell B. Adams, which documented changes in the Upper Midwest's trade centers and trade areas from 1930 to 1960. The three areas examined here—north-central Iowa, southeastern Montana, and northwestern Wisconsin—illustrate the diversity of the region and the changing role and functions of its trade centers over the last thirty years.

Thomas Anding, Associate Director of CURA and the Trade Center Project Director, was responsible for the original case study concept and the selection of the case study areas. He also made substantive contributions during the course of the case study work as well as participating in the final draft review.

This publication would not have been possible without the willing cooperation of many business and professional people who gave us added information and a historical perspective on their towns and cities. Their help allowed for a more complete understanding of the individuality of each place we examined.

We would also like to thank the production staff at CURA, Louise Duncan and Christine McKee, who coordinated the final stages of the report and did all the production work. Their help was invaluable. Our editor, Yvonne Pearson, provided substantial editorial assistance.

Barbara Lukermann
Research Associate
Center for Urban and Regional Affairs

INTRODUCTION TO CASE STUDIES

Purpose

The three case studies contained in this report are companion pieces to a 1990 study examining the way trade centers—towns and cities—in the Upper Midwest responded to economic trends between 1960 and 1989.* The 1990 study painted a picture of the Upper Midwest as a region in which large trade centers have expanded their spheres of influence at the expense of smaller communities. People travel farther to work and to shop than they used to and depend less on the small towns that are spread out across the countryside. Still, the small trade centers have hung on and continue to be very important to the region's residents. The case studies largely corroborate, and in some cases intensify, some of the major trends reported in the regional study.

The regional report analyzed changes in economic activities and spheres of economic influence of almost 4,000 trade centers. It used a hierarchy of trade centers established in a 1960 study by John Borchert and Russell Adams** as a framework (Table 0.1). The 1960 framework determined a place to be at a certain level of the hierarchy based on its types of businesses and sales volume. (See Chapter 2 of the regional report for a more complete description of the hierarchy levels).

The 1990 report based its analysis on Dun and Bradstreet data on the number of business establishments and their Standard Industrial Classification (SIC) code. (See Chapter 3 of the regional report for a complete description of the methodology.) During the study, the question arose of whether these data accurately and adequately portray and explain the changes over the thirty-year period. Were the broader trends masking significant deviations that could not be identified solely by the number of establishments? Would a more intensive assessment at the individual community level that involved key informant interviews and visual inspection offer greater understanding of what is actually happening and why? Has change been linear or cyclical? In order to answer these questions, in-depth case studies for three selected areas were conducted to add concreteness and depth to the larger study.

Table 0.1 Trade Center Hierarchy

Trade Center Level	Trade Center Class Name
0	Metropolitan
1	Primary Regional
2	Secondary Regional
3	Complete Shopping
4	Partial Shopping
5	Full Convenience
6	Minimum Convenience
7	Hamlet

* Thomas Anding et al., *Trade Centers of the Upper Midwest: Changes from 1960 to 1989*, Center for Urban and Regional Affairs, University of Minnesota, 1990.

** *Trade Centers and Trade Areas of the Upper Midwest*, Urban Report Number 3. Upper Midwest Economic Study. Minneapolis: Upper Midwest Research and Development Council, September 1963.

Selection of Case Study Areas

In particular, we were interested in looking at the functional shifts occurring in the smaller communities, i.e., what kinds of businesses had come and gone over the last three decades. The regional studies found that larger trade centers have expanded their spheres of influence in response to changes in merchandising techniques and increased household mobility. As a result, it has become more difficult to differentiate among the bottom four levels of the hierarchy—partial shopping centers, full and minimum convenience centers, and hamlets. Because of this trend, we wanted to increase our understanding of changes in these smaller communities.

To do so, we decided to compare areas that had a preponderance of small trade centers but were significantly different otherwise. Small areas in north-central Iowa, southeastern Montana, and northwestern Wisconsin were selected for the micro analysis. They have different economic bases, quite different landforms and settlement densities, and have experienced different levels of population change between 1960 and 1990. At the same time, the largest trade centers in the case study are complete shopping centers, with the exception of one secondary regional center in north-central Iowa.

A brief comparison of the key features of the three case study areas is shown in Table 0.2. Figure 0.1 shows where the areas are located within the seven-state region.

Approach and Information Sources

As in the regional report, Dun and Bradstreet data on number of business establishments and the SIC code provided the basic statistical information for the case study area analyses. Dun and Bradstreet data are organized by zip code; each zip code area serves as a surrogate for a trade center in our study. Since the economic analysis was performed, selected 1990 census data have been released and have been included here in the population and age tables and figures.

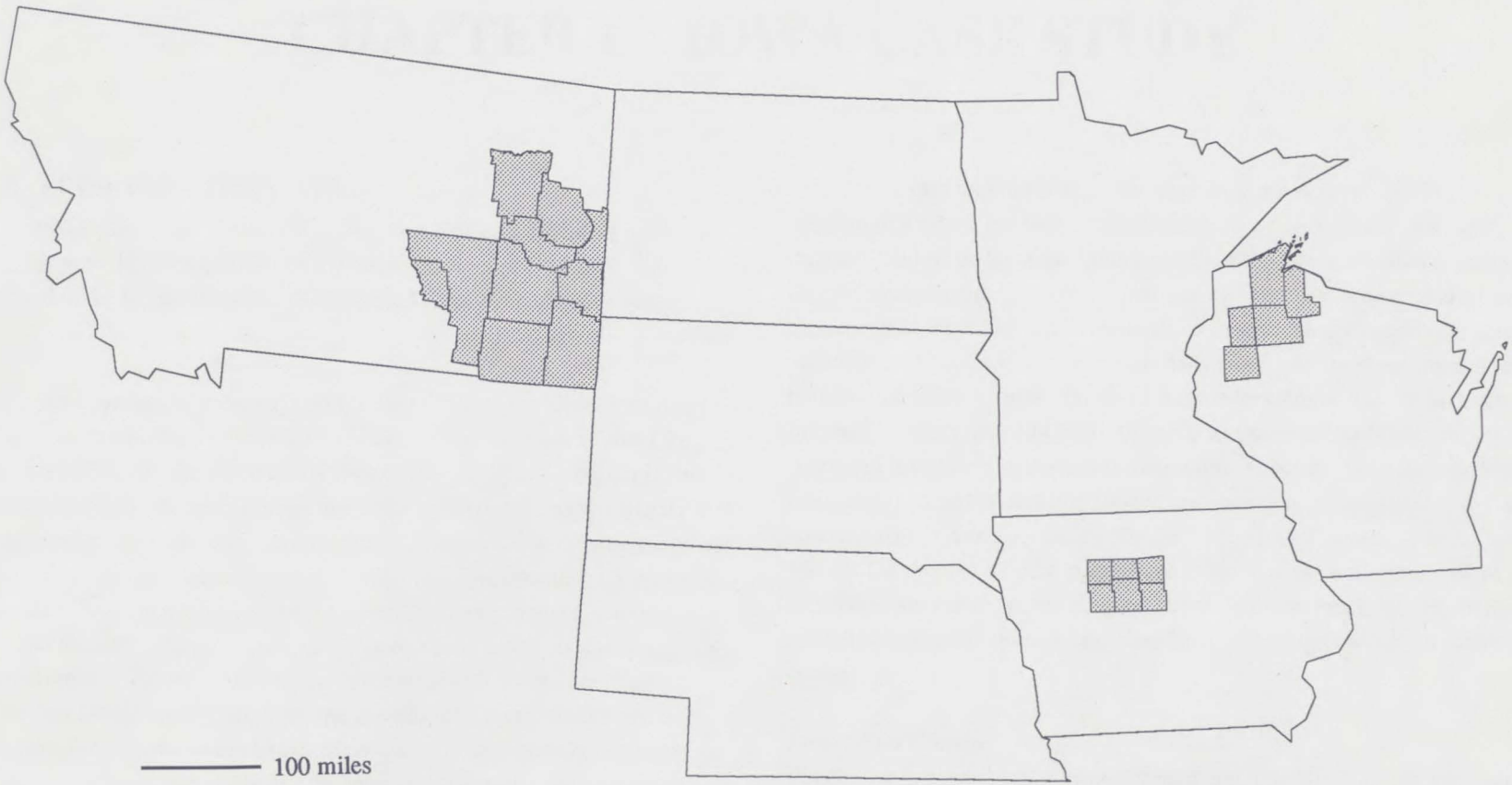
In addition, fieldwork was conducted in the local areas. This included extensive interviews with key informants, visual inspection of the commercial and industrial districts at different trade center hierarchy levels, and, in the Iowa case study, a mailed survey to all businesses in a stratified sample of centers. Some communities also gave us copies of recent reports summarizing economic trends in their region.

Table 0.2 Key Features of the Case Study Areas

Feature	North-Central Iowa	Southeastern Montana	Northwestern Wisconsin
Economic base	cash grain farming	ranching/ coal/oil mining	mixed farming/ timber/tourism
Rural settlement density pattern	high	low	moderate
Population 1990	102,168	43,763	98,945
Population change 1960-1990	-22%	-11%	19%
Number of centers	56	31	48

There are four chapters in this report. Chapter 1 presents the north-central Iowa case study, Chapter 2 presents the southeastern Montana study, and Chapter 3 presents the northwestern Wisconsin study. Each case study starts with an overall picture of the area which includes information on population, age, and employment. Next is an examination of the changes in the trade center hierarchy in that area. This section examines both movements of centers between levels, and shifts in population, number of businesses, and mix of industries within levels of the hierarchy. As mentioned above, the Iowa case study includes a section on the results of a survey of business owners and managers. The final section is a summary of the findings for that area. Chapter 4 synthesizes the conclusions and discusses the extent to which they confirm those found in the regional report. Appendices provide additional demographic and statistical data and sources for those data.

Figure 0.1 Case Study Areas: North-Central Iowa, Southeastern Montana, Northwestern Wisconsin



CHAPTER 1. IOWA CASE STUDY

Profile of the Case Study Area

A six-county area in north-central Iowa with Fort Dodge at its center has been selected for more detailed analysis of the micro patterns of change in trade centers within the Upper Midwest. (See Figure 1.1 for the regional setting.)

Setting

The northern boundary of the area is one county south of the Minnesota state line. The eastern boundary is Interstate 35, which serves as both a funnel for rapid travel to Des Moines some ninety miles to the south and a barrier separating this region from the trade centers more tied to Waterloo, approximately 100 miles to the east. The case study area (Figure 1.2) covers 3,500 square miles and contains one secondary regional center, Fort Dodge, one complete shopping center, Webster City, and a large number of partial shopping centers, convenience centers and hamlets. Figure 1.2 shows the trade center class designation for the individual cities.* Figure 1.3 shows the same area with county boundaries.

The Fort Dodge area exemplifies the general settlement structure of the prairie Corn Belt section of the Upper Midwest—closely spaced towns built to meet the service and trade needs of a prosperous cash grain farming economy. Local people identify this land as the "best agricultural soils anywhere in the world." Massive white elevators dot the landscape. Only the narrow and shallow valley of the Des Moines River running north/south through the region breaks up the landscape with modest local relief and non-productive agricultural soils. The area was densely settled in the second half of the nineteenth century with a close gridding of roads and an extensive rail network serving agriculture's needs. By 1870, trade centers were railroad-as well as road-oriented. Today, many of the branch rail lines have been abandoned, although the elevators remain. Grain from these storage facilities is now trucked to elevators still served by rail. Reorientation toward the automobile for getting products to market, for commuting to daily work, and for shopping and recreation has had a direct impact on the economic fortunes of these Iowa towns. Interstate 35 has replaced US Highway 69 as the major north/south route and shortened travel time to the major metropolitan centers. The east/west highway between the interstate and Fort Dodge has already been upgraded to freeway status. A trip to Ames for college football or a cultural event, a trip to Des Moines for shopping, or a trip to Minneapolis/St. Paul is a commonplace excursion. Mobility expands choice, simultaneously maintaining stability in the overall settlement patterns while diverting purchasing power from smaller centers.

Population Change

Population in north-central Iowa declined precipitously between 1960 and 1990—a 22 percent decrease—dropping from 5 percent to 4 percent of the state's population. Table 1.1 shows that population declined in every county of the case study area in each of the last three decades, and the rate of decline accelerated during the 1980s. The decline is greater in the western, more agriculturally-dependent counties, where farm consolidation has proceeded.

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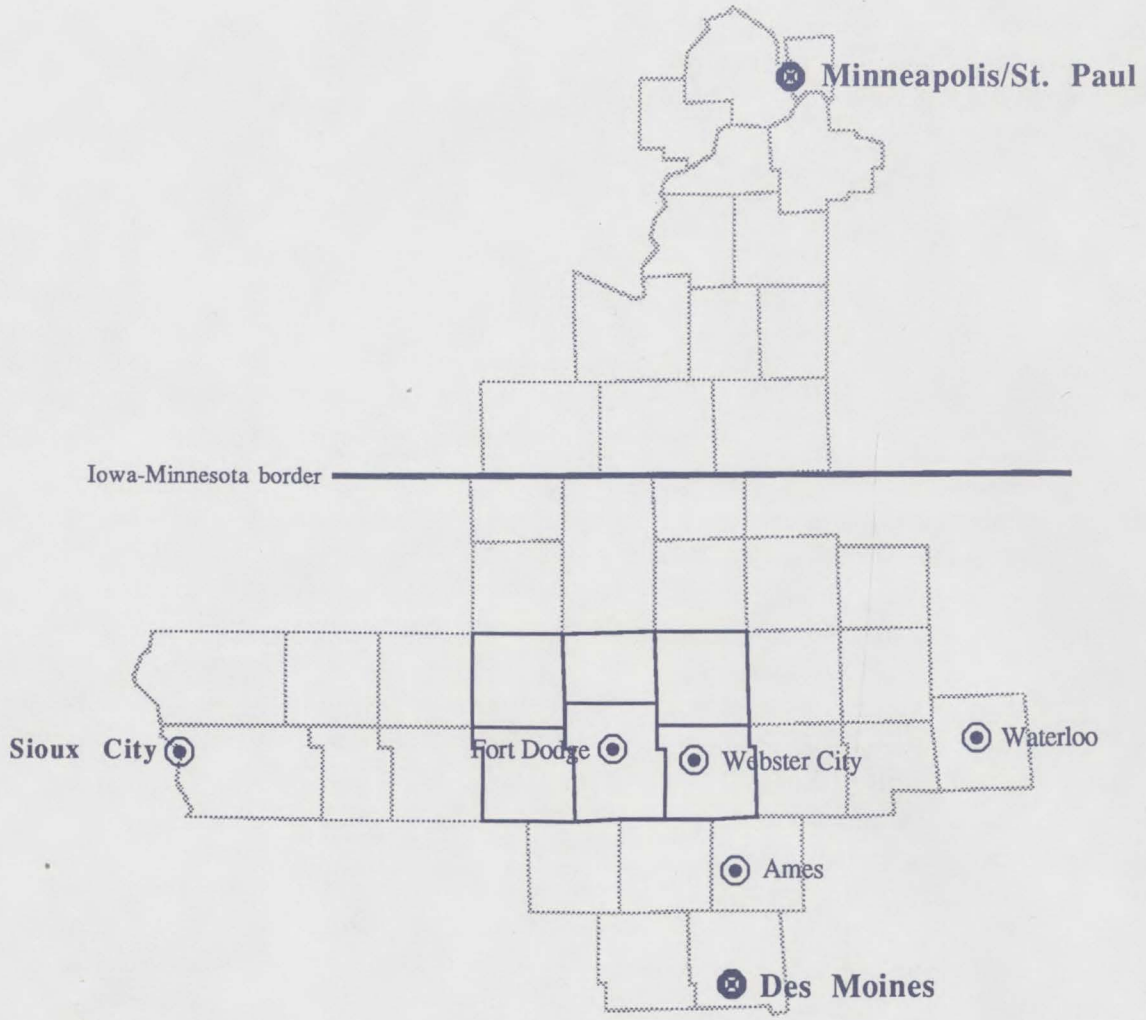
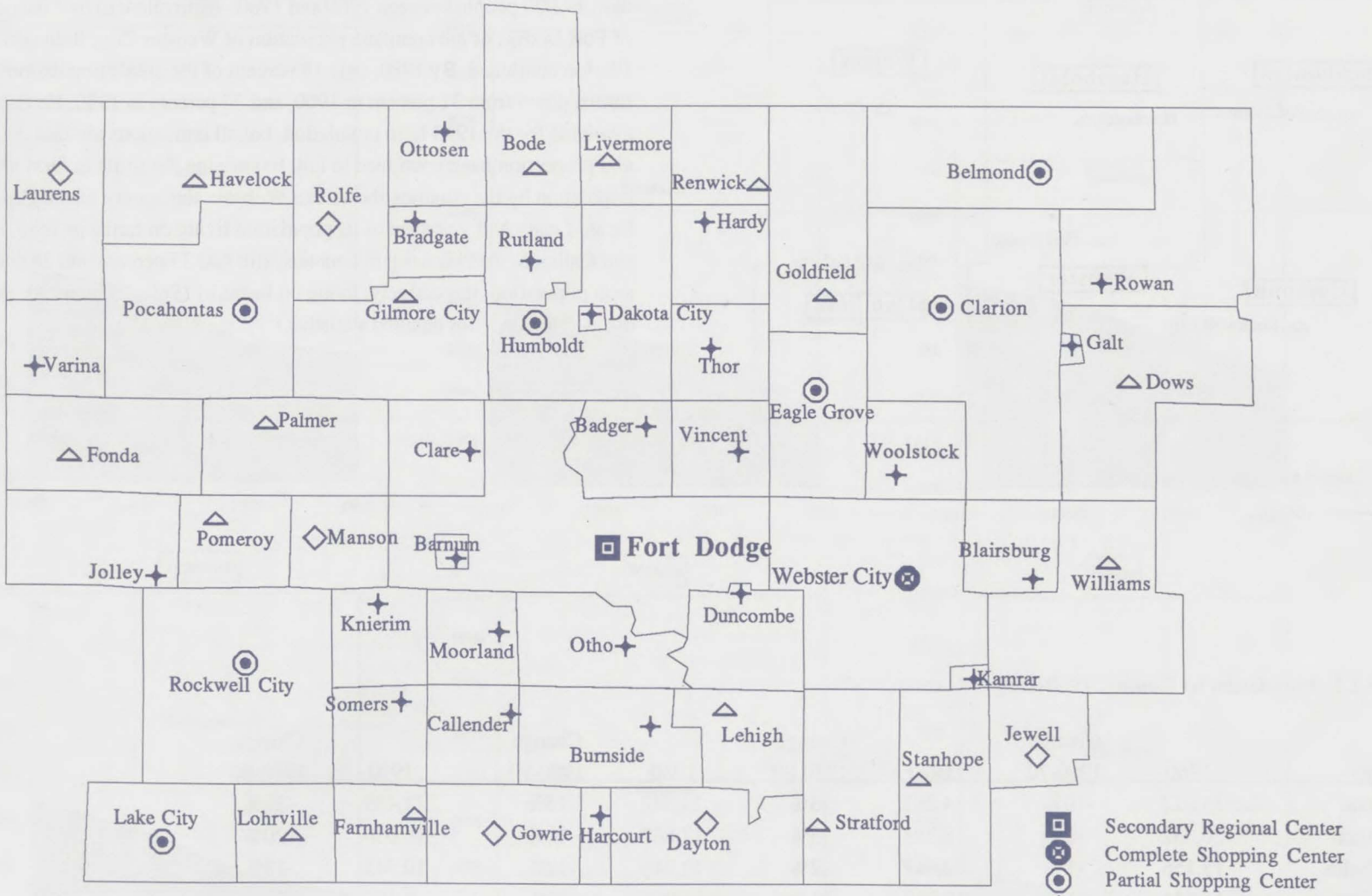
* The case study area in 1989 contains no metro area (level 0) or primary regional centers (level 1), one level 2 (secondary regional), one level 3 (complete shopping), seven level 4 (partial shopping), six level 5 (full convenience), sixteen level 6 (minimum convenience), and twenty-five level 7 (hamlet)--for a total of fifty-six individual towns.

Figure 1.1 Regional Map for Iowa Case Study Area



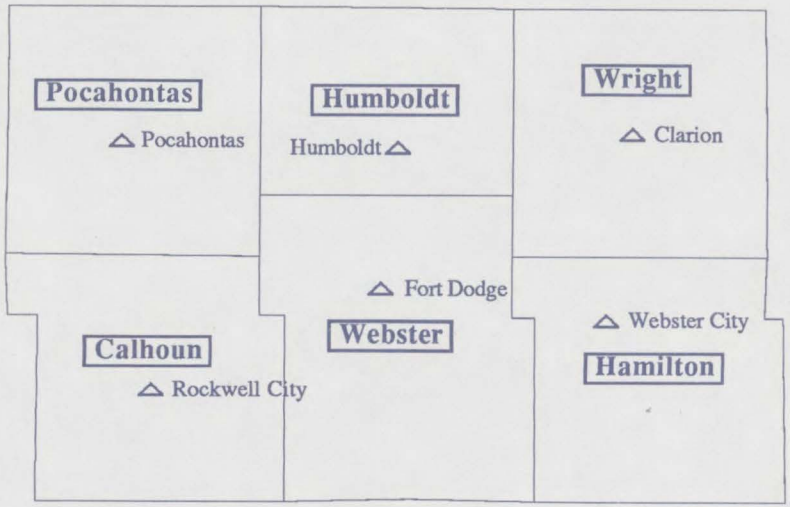
* Note: Geographic boundaries are county divisions.

Figure 1.2 Iowa Case Study Area, 1989



* Geographic boundaries are zip code areas.

Figure 1.3 County Map of Iowa Case Study Area

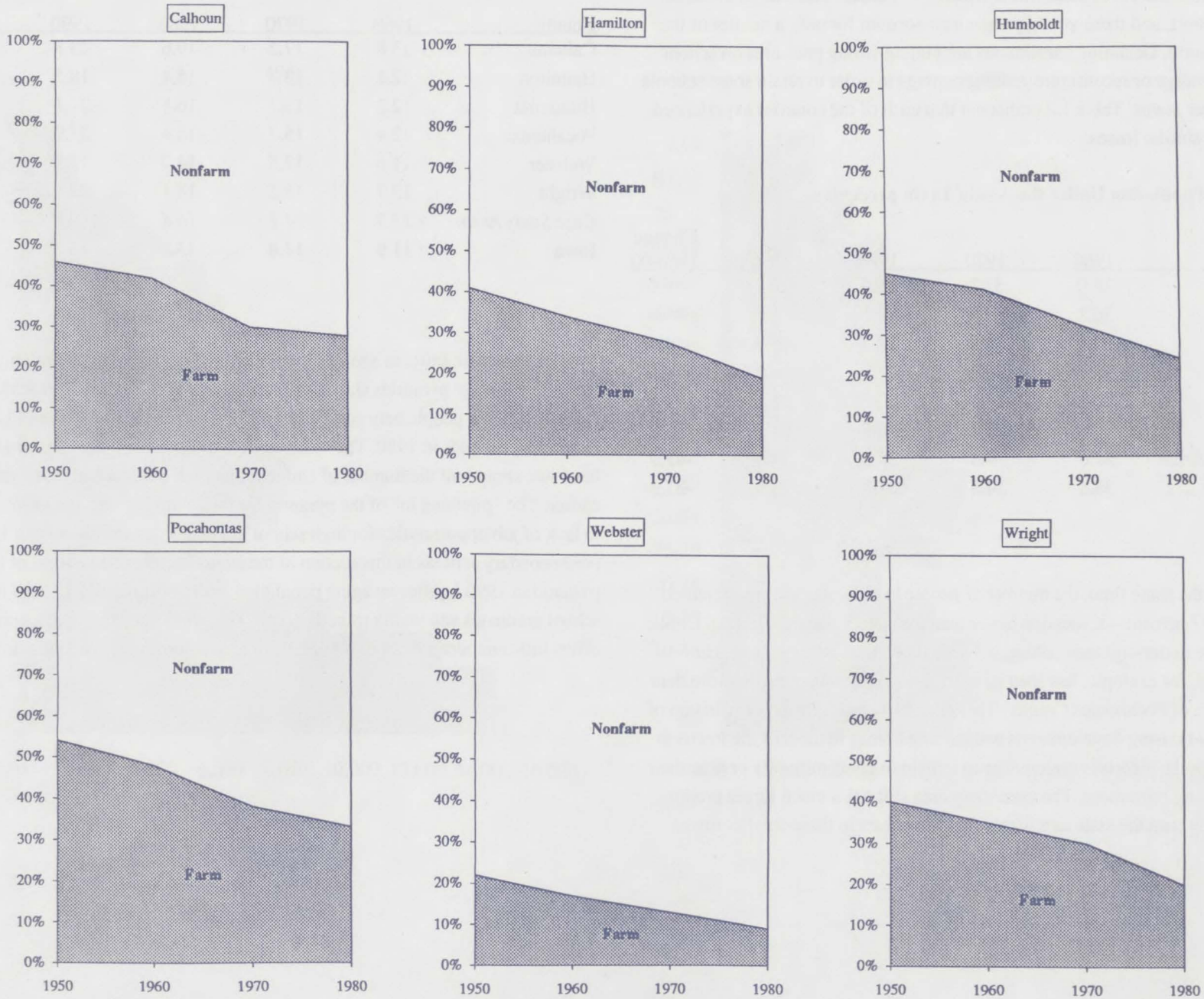


One of the most striking shifts in population in the Upper Midwest is the decrease in proportion of people living on farms. In this area, farms lost more than 19,000 people between 1960 and 1980—equivalent to half the population of Fort Dodge, or the complete population of Webster City, Belmond and Clarion combined. By 1980, only 18 percent of the area's population lived on farms, down from 31 percent in 1960, and 37 percent in 1950. No data are yet available for the 1990 farm population, but all indications are that the number and proportion have continued to fall. Examining the shifts in farm and nonfarm population by the counties shows that Webster, the county where Fort Dodge is located, only had 9 percent of its population living on farms in 1980. Pocahontas and Calhoun, the two western counties, still had 33 percent and 28 percent of total population, respectively, living on farms in 1980 (Figure 1.4). (See Appendix A, Table A.1 for detailed statistics.)

Table 1.1 Population by County, 1960-1990

County	1960	Change 1960-70	1970	Change 1970-80	1980	Change 1980-90	1990	Change 1960-90
Calhoun	15,923	-10%	14,287	-5%	13,542	-15%	11,489	-28%
Hamilton	20,032	-8%	18,383	-3%	17,862	-10%	16,030	-20%
Humboldt	13,156	-5%	12,519	-2%	12,246	-12%	10,743	-18%
Pocahontas	14,234	-11%	12,729	-11%	11,369	-17%	9,486	-33%
Webster	47,810	1%	48,391	-5%	45,953	-12%	40,242	-16%
Wright	19,447	-11%	17,294	-6%	16,319	-13%	14,178	-27%
Case Study Area	*130,602*	*-5%*	*123,603*	*-5%*	*117,291*	*-13%*	*102,168*	*-22%*
Iowa	**2,757,537**	**2%**	**2,824,376**	**3%**	**2,913,808**	**-5%**	**2,766,658**	**0.3%**

Figure 1.4 Farm and Nonfarm Population by County, 1950-1980



This area has also experienced a marked graying of the population. Between 1960 and 1990, there was a massive 46 percent decrease in the under-eighteen cohort, and these young people now account for only a quarter of the total population. Declining enrollments are putting strong pressures on school districts to merge or reconfigure grade groupings in order to retain some schools in the smaller towns. Table 1.2 points out that each of the counties experienced remarkably similar losses.

Table 1.2 Population Under the Age of 18 (in percents)

County	1960	1970	1980	1990	Change 1960-90
Calhoun	36.0	33.3	26.4	25.1	-49.6
Hamilton	36.1	33.7	27.5	25.5	-43.6
Humboldt	37.6	36.2	27.5	25.5	-44.6
Pocahontas	38.1	36.2	27.7	26.0	-54.5
Webster	37.1	35.5	27.7	26.0	-41.0
Wright	37.0	33.4	26.5	24.6	-51.6
Case Study Area	*37.0*	*34.8*	*27.3*	*25.6*	*-45.9*
Iowa	**35.8**	**34.5**	**28.3**	**25.9**	**-37.3**

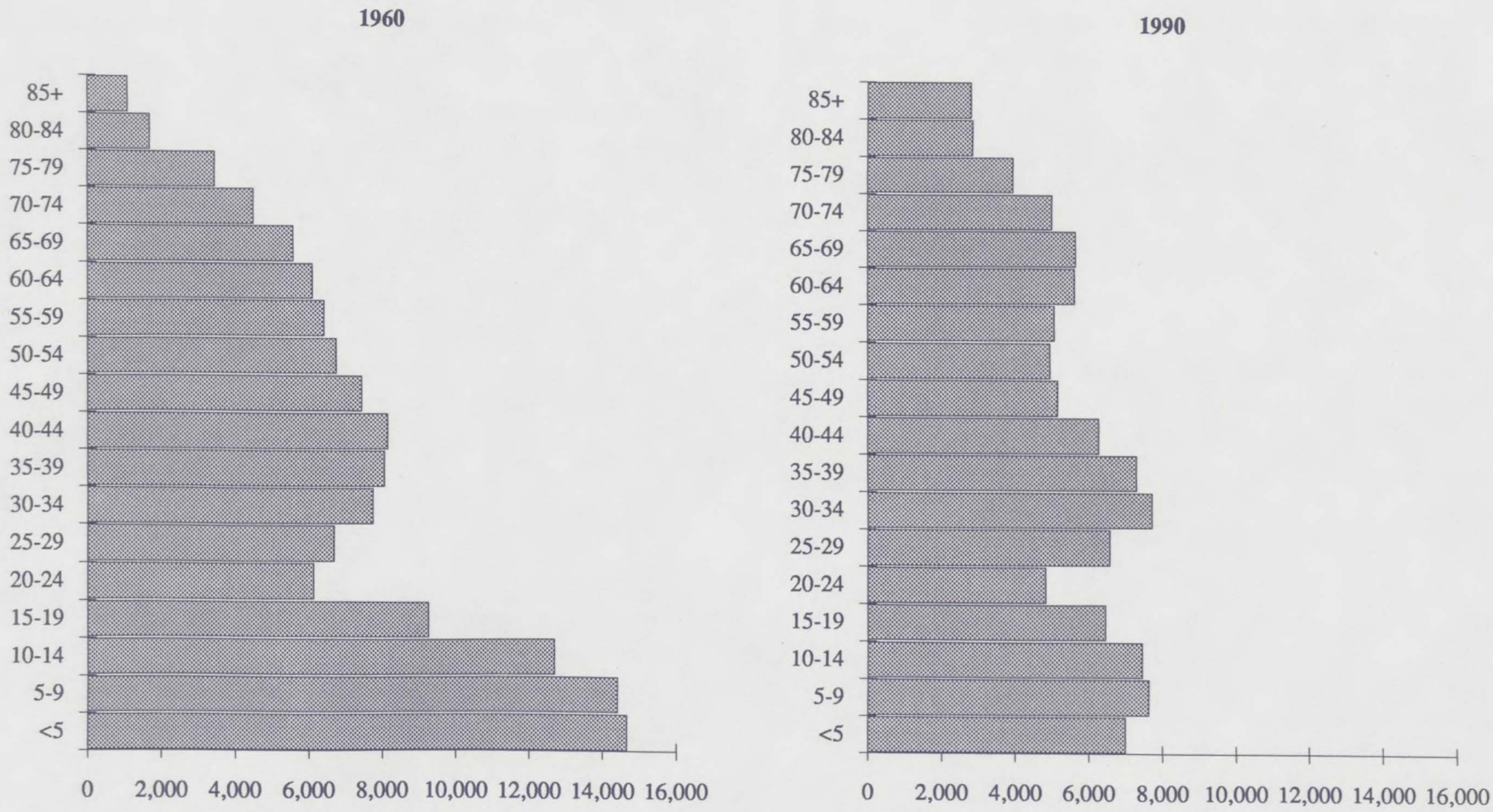
During the same time, the number of people in older age groups increased at a rate of 27 percent—somewhat lower than the state's rate (Table 1.3). Unlike trends for the under-eighteen cohort, individual counties differ greatly. Humboldt County, for example, has seen its elderly population increase at more than twice the rate of Pocahontas County. There has been widespread construction of small elderly housing developments and nursing homes in most of the towns to accommodate the elderly's preferences to remain in the community or near their farms following retirement. The case study area still has a much larger proportion of elderly than the state as a whole. Housing costs in these smaller towns are still low.

Table 1.3 Population Age 65 and Older (in percents)

County	1960	1970	1980	1990	Change 1960-90
Calhoun	13.8	17.2	19.6	23.8	24.3
Hamilton	12.1	13.7	15.4	18.5	22.5
Humboldt	12.2	13.7	16.5	21.1	41.0
Pocahontas	12.4	15.7	18.4	21.9	17.7
Webster	11.6	12.5	14.7	17.7	28.3
Wright	12.7	15.2	18.1	22.3	27.8
Case Study Area	*12.3*	*14.1*	*16.4*	*19.9*	*26.9*
Iowa	**11.9**	**12.4**	**13.3**	**15.3**	**30.0**

The dramatic shifts in age structure over the last three decades are highlighted by the age pyramids shown in Figure 1.5. There are far more "old-old" (over 70), fewer people between 40 and 65, and only about half the number of under-15-year-olds in 1990. The same number of 25- to 34-year-olds in 1990 have just about half the number of children that their parents had thirty years earlier. The "pinching in" of the pyramid for the 20- to 24-year-old group points to lack of job opportunities for high school graduates and the absence of large postsecondary schools in this section of the state. The block-like form of the pyramid in 1990 typifies an aging population with out-migration of both high school graduates and young retired people. The small number of preschoolers offers little encouragement to school districts that enrollment will stop declining.

Figure 1.5 Age Structure of Case Study Area, 1960 and 1990



Employment Patterns

The 1960s and 1970s were "boom years." Smaller household sizes, increased participation in the labor force, and extended commutersheds provided an adequate labor market to absorb expansion in almost all employment sectors despite population losses. Economically, prices and demand for grain and soybeans remained strong and individual farm enterprises grew in size and asset base. Sales of high-cost farm machinery prospered. Processing of agricultural products supported a thriving manufacturing industry for meat processing and feed mills.

The 1980s were another story, a time referred to as the years of "the farm crisis." Sky high farm land prices (as high as $4,000 per acre at the peak) plummeted to as low as $1,000 per acre in the early 1980s leading to a rash of farm (and bank) foreclosures. Hormel and IBP, Inc., the two large meat-packing firms, closed in Fort Dodge as they became uncompetitive in the larger market. Job losses could not be offset by relatively strong growth of diversified manufacturing of durable goods in Webster City and an animal-related pharmaceutical industry in Fort Dodge. The service sector of the employment base enjoyed modest expansion, but all other sectors showed losses, including losses in agricultural employment.

A more detailed examination of shifts in the employment base between 1962 and 1987 reveals great volatility and contrast between the growth years of the 1970s, when jobs increased by 34 percent, and the "bust years" of the 1980s, when 11 percent of the jobs were lost. Growth and decline were much sharper in this local area than in the state, where the rate of increase in the 1970s was only 16 percent, and loss in the 1980s, 3 percent.

Table 1.4 highlights that an impressive average annual increase of 843 jobs in the 1960s and 522 jobs in the 1970s quickly reversed into an average annual loss of 500 jobs between 1980 and 1987. This loss was spread across most sectors—152 average loss per year in construction, 134 in manufacturing, 184 in wholesaling (primarily in farm implement dealerships), and 100 in retail trade. Banking and insurance jobs remained static. In contrast, jobs in the service sector (health, education, government, personal services) increased by 100 per year. In 1980, the local area had almost 300 jobs per 1,000 population. (See Appendix A, Table A.2 for detailed statistics by county.)

The mix of jobs in the case study area is quite similar to that of the state, though individual counties differ in their diversification and reliance on agriculture and manufacturing. Webster County, where Fort Dodge is located, lost four out of every ten manufacturing jobs in the 1980s; in contrast, Hamilton County

Table 1.4 Number of Jobs for All Industries* by County, 1962-1987

County	1962	Change 1962-70	1970	Change 1970-80	1980	Change 1980-87	1987	Change 1962-87
Calhoun	1,285	309	1,594	678	2,272	-246	2,026	58%
Hamilton	2,937	1,000	3,937	886	4,823	529	5,352	82%
Humboldt	1,426	254	1,680	755	2,435	-210	2,225	56%
Pocahontas	1,394	489	1,883	300	2,183	-170	2,013	44%
Webster	10,880	4,089	14,969	1,451	16,420	-3,327	13,093	20%
Wright	2,213	606	2,819	1,149	3,968	-73	3,895	76%
Case Study Area	*20,135*	*6,747*	*26,882*	*5,219*	*32,101*	*-3,497*	*28,604*	*42%*
Iowa	**505,759**	**169,128**	**674,887**	**231,486**	**906,373**	**-31,685**	**874,688**	**73%**
Annual average change:		843		522		-500		

* Does not include agricultural services or mining.

(Webster City) gained over 600 manufacturing jobs—primarily at WCI Laundry Product Co., which manufactures refrigerators. In this instance, a lower order trade center has fared significantly better than its larger neighbor, which relied heavily on livestock processing, and residents of Fort Dodge, the largest urban center in the region, are in the ironic position of commuting to Webster City. In the more agriculturally dependent counties of Calhoun and Pocahontas, service jobs were the primary growth sector, doubling their share of total employment between 1962-1987.

Figure 1.6 shows that manufacturing and retail jobs account for a much smaller share of employment in 1987 than in 1962, and service jobs a much larger share. Analysis of the shifts in employment composition in relation to change of business establishments is covered in greater detail in the next section. (See Appendix A, Table A.2 for detailed statistics on the mixes of employment by county, and Table A.3 for the state of Iowa and the case study area as a whole.)

The Trade Center Hierarchy

Population Change by Trade Center Class

Every level of the trade center hierarchy lost population overall during the thirty years, and this decline accelerated during the 1980s. The bottom two levels of the hierarchy experienced a pattern of greater loss in recent years. (See Table 1.5; note that population figures refer to the incorporated city's population and exclude the small portion of the population which lives in the rest of the zip code district. See Appendix A, Table A.4 for detailed population numbers for each of the fifty-six places in the hierarchy.)

The most stable cities appear to be those full convenience centers with a population between 1,000 and 2,000. Local events in the individual cities explain a great deal of the change that did occur. Fort Dodge, for example, has not followed the typical pattern of stability or growth for most secondary regional centers in the Upper Midwest because of major employment losses in the meat packing industry during the 1980s. On the other hand, Webster City, the second largest city in the region, enjoyed employment stability due to its more diversified manufacturing base.

Table 1.5 Population Change by Trade Center Class, 1960-1990 (in percents)

	Change			
	1960-70	1970-80	1980-90	1960-90
2 Secondary regional	10	-6	-12	-9
3 Complete shopping	0	1	-8	-7
4 Partial shopping	3	1	-10	-7
5 Full convenience	5	-4	-6	-5
6 Minimum convenience	-5	0	-16	-21
7 Hamlet	0	12	-17	-6
Case Study Area	*-5*	*-5*	*-13*	*-12*

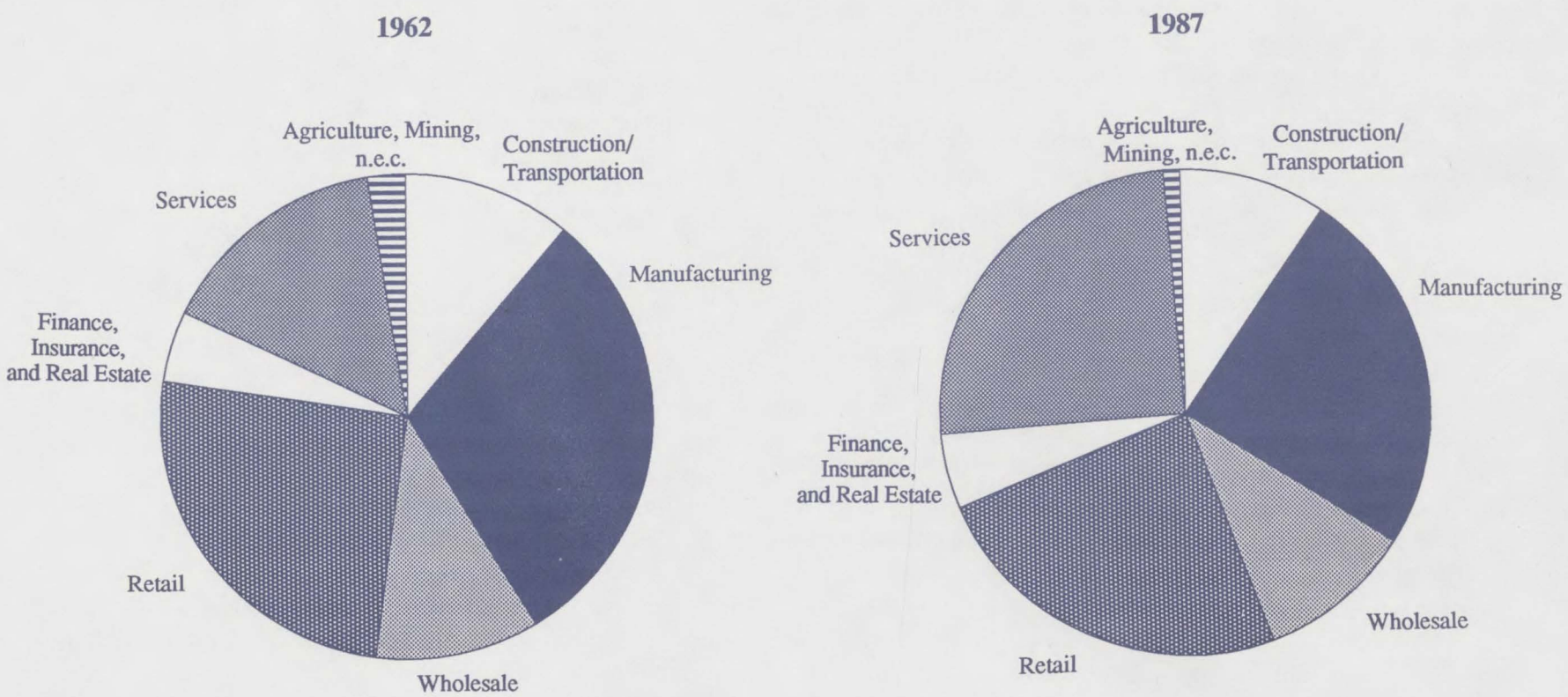
Trade Centers That Changed Levels

Places in the case study area generally retained their economic position in the trade center hierarchy, but there were some important exceptions, all of them relatively small communities which "moved down" a level. No place moved up to expand its dominance. A place is said to have moved when substantial changes in the number and types of businesses occur, based on a detailed scoring system (see the Technical Appendix in *Trade Centers of the Upper Midwest: Changes from 1960 to 1989* for further information on the methodology).

Seven places moved down one level, most of them in the western part of the region, which has a less diversified manufacturing base. Humboldt and Clarion moved from being rated quite weak complete shopping centers (level 3) to partial shopping centers. Humboldt retains a stronger business base than the partial shopping center profiles as a whole, while Clarion has a weaker base. Laurens moved from a partial shopping center down to a relatively strong full convenience center. Fonda and Pomeroy moved from full convenience to minimum convenience centers. Thor and Harcourt moved down to hamlet status.

The seven communities that moved down had almost one hundred fewer retail establishments in 1989 than in 1960. Construction firms went down from fifty-eight to thirty-eight. Increases in wholesaling, manufacturing and services occurred only in the two largest towns, but were not enough to offset the losses in other industry categories. The smallest centers were decimated, losing well over half of their businesses, and losing them in almost every industry category (Table 1.6).

Figure 1.6 Changing Composition of the Local Employment Base, 1962 and 1987



Note: n.e.c. = not elsewhere classified

Table 1.6 Number of Establishments by Industry Category in Places that Moved Down in the Trade Center Hierarchy, 1960-1989

1960	1989	Trade	Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
Level	Level	Center	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
3	4	Clarion	3	1	12	6	10	15	6	6	15	17	76	51	2	2	18	23	412	121
3	4	Humboldt	3	0	20	7	17	23	9	10	9	26	86	88	2	3	18	30	164	197
4	5	Laurens	0	0	15	11	7	7	4	3	13	17	40	20	1	1	10	6	90	65
5	6	Fonda	1	0	4	2	3	2	1	0	4	5	29	14	1	1	8	7	51	31
5	6	Pomeroy	1	0	3	2	2	3	2	0	7	6	33	7	1	1	8	1	57	20
6	7	Thor	0	1	1	0	1	0	2	0	2	3	7	1	1	1	2	0	16	6
6	7	Harcourt	0	0	3	0	1	0	2	0	3	3	12	4	2	1	2	1	25	9

The stability of the hierarchy in the case study area is similar to that in the state as a whole. In the entire state, only sixteen towns moved up a level, while forty-nine moved down. Waterloo, Dubuque, and Council Bluffs dropped from primary regional centers to secondary regional centers. Fort Dodge retained its regional center status, but only barely, as Ames and Des Moines grew in their pull. A total of twelve cities in Iowa fell from complete shopping center to partial shopping center, two of them in this case study area.

Nevertheless, the number of trade centers that shifted levels in Iowa is small compared to the 973 centers in the state. Stability in the trade center hierarchy prevails, despite declining population and loss of jobs in recent years.

Shifts in the Mix of Businesses

The regional study documented increases in the number of establishments in all industry classes between 1960 and 1989, with the exception of retail, which grew marginally in the higher level centers but decreased in the lower levels. Service establishments proliferated and the wholesaling and construction industries expanded. At the same time, a larger proportion of all businesses became concentrated in the higher order cities.

The regional study also found that smaller places became more similar to larger places in their business mix, with a single major exception–a much larger explosion of service-related establishments in the higher order trade centers.

Similar to the regional study area, the case study area had an increase in the number of establishments in most industry classes, with a greater concentration of businesses in the higher level trade centers (Table 1.7). Fort Dodge, for example, has increased its share of local businesses from 25 percent to 32 percent despite recent job losses. Service establishments proliferated in the area as a whole, with Fort Dodge capturing most of this expansion. Services moved from a 26 percent share of Fort Dodge's business to a 49 percent share. The number of establishments in the construction industry expanded slightly. The wholesale industry also expanded slightly at most levels, with the notable exception for Fort Dodge. Retail establishments category dropped significantly, and the two bottom levels lost more than half of their retail stores.*

However, unlike in the regional study, it was not clear that smaller places became more similar to larger places in their business mix, and in fact, the economic vitality in the bottom two levels has shrunk well above average for the region. Table 1.8 shows that the proportion of retail establishments declined significantly at every level, but they still constitute the highest proportion of business at every level. Services ranks second in the larger trade centers, but only third or fourth at the lower levels. In fact, services have been moving out of the lower levels at an alarming rate, and as Table 1.7 shows, the number of service establishments just remained the same at level 6, and decreased at both levels 5 and 7. Manufacturing establishments now account for a larger share of

* Note that the comparison across the two time periods includes the transfer of some communities to a different level; thus, no direct conclusions can be made for levels involving a move down of one or more communities.

Table 1.7 Average Number of Business Establishments in Each Industry Category by Trade Center Class, 1960 and 1989

	Count		Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
2 Secondary regional	1	1	5.0	9.0	93.0	121.0	71.0	59.0	33.0	60.0	123.0	91.0	348.0	327.0	3.0	6.0	104.0	212.0	780.0	885.0
3 Complete shopping	3	1	2.7	1.0	20.7	33.0	19.0	31.0	8.0	18.0	14.0	25.0	98.3	104.0	2.0	2.0	22.3	51.0	187.0	265.0
4 Partial shopping	6	7	1.0	1.9	12.7	12.4	6.3	11.0	4.7	6.4	10.0	13.1	54.0	44.9	1.5	2.1	15.8	21.7	106.0	113.6
5 Full convenience	7	6	1.3	0.5	4.9	7.7	2.4	4.7	1.9	2.5	6.3	8.2	28.0	16.0	1.0	1.2	8.1	6.8	54.7	47.5
6 Minimum convenience	16	16	0.4	0.4	2.6	2.8	1.4	1.1	2.3	2.1	2.9	3.9	15.1	7.3	1.1	1.0	2.9	2.9	28.8	21.5
7 Hamlet	23	25	0.0	0.4	0.7	1.7	0.1	0.3	0.9	0.4	1.8	1.8	5.5	2.4	0.3	0.3	1.4	0.6	10.7	7.8

Table 1.8 Mix of Industry Categories Within Each Trade Center Class, 1960 and 1989 (in percents)

	Count		Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
2 Secondary regional	1	1	1	1	12	14	9	7	4	7	16	10	45	37	0	1	13	24	100	100
3 Complete shopping	3	1	1	0	11	12	10	12	4	7	7	9	53	39	1	1	12	19	100	100
4 Partial shopping	6	7	1	2	12	11	6	10	4	6	9	12	51	39	1	2	15	19	100	100
5 Full convenience	7	6	2	1	9	16	4	10	3	5	11	17	53	34	2	2	15	14	100	100
6 Minimum convenience	16	16	1	2	9	13	5	5	8	10	10	18	52	34	4	5	10	13	100	100
7 Hamlet	23	25	0	5	6	22	1	4	9	5	17	23	51	31	2	4	13	8	100	100

establishments at almost all levels despite a decline in the total number of manufacturing jobs. Therefore, number of establishments alone cannot fully describe the shifts in economic base or vitality.

Economic vitality of the lower levels of the hierarchy in the case study area has also shrunk more rapidly than the comparable levels in the state as a whole.

The case study communities tend to have a slightly higher average number of establishments per 1,000 population than communities in the state as a whole, even though they have significantly fewer people (Tables 1.9, 1.10, and 1.11). Most likely this reflects times prior to the out-migration of population and some inertia in business response to this depopulation. Out-migration of both establishments and people from the bottom three levels points to much more serious economic decline in this subregion than for similar sized communities in the state as a whole.

Table 1.9 Average Population by Trade Center Class, 1989

		Case Study Area	Iowa
2	Secondary regional	28,885	41,512
3	Complete shopping	9,729	12,502
4	Partial shopping	3,422	5,132
5	Full convenience	1,558	2,748
6	Minimum convenience	1,055	1,636
7	Hamlet	637	625

Table 1.10 Average Number of Establishments per 1,000 Population by Trade Center Class, 1989

		Case Study Area	Iowa
2	Secondary regional	31	23
3	Complete shopping	27	26
4	Partial shopping	33	28
5	Full convenience	31	25
6	Minimum convenience	20	20
7	Hamlet	12	14

Table 1.11 Change in Average Number of Establishments by Trade Center Class, 1960-1989 (in percents)

		Case Study Area	Iowa
2	Secondary regional	13	23
3	Complete shopping	42	28
4	Partial shopping	8	7
5	Full convenience	-13	-7
6	Minimum convenience	-25	-11
7	Hamlet	-27	-14

Shifts in the Number of Jobs per Establishment

The number of employees per establishment has increased moderately (from 6.4 to 10.0 between 1962 and 1987) for the case study area. However, individual counties and the specific sectors of the economy have deviated significantly from this average. (Please note that Table 1.12 refers to four sectors of the economy: retail, wholesale, manufacturing and construction/transportation. Service industries are excluded from the table since coverage of service employment in County Business Patterns data and Dun and Bradstreet data are not directly comparable.)

- The number of jobs per establishment has been remarkably stable across all sectors of the economy except in retailing, where the average doubled. Retailing accounts for almost half of the net gain in number of jobs (1,857 out of the 4,102 gain). At the same time, there was a net loss of 449 establishments. This agglomeration occurred in each of the counties.
- Manufacturing continues to have the largest establishments as measured by number of employees, but a wide deviation occurs between the counties. The average number of manufacturing jobs has increased quite significantly in all counties except Webster, reflecting both the more widespread general economic shifts and unique local circumstances. For example, a large hydraulic cylinder manufacturing plant outside Pocahontas and a large implement dealership and grain elevator operation in relatively smaller cities in Wright County (Woolstock and Eagle Grove) bring up these counties' averages; the loss of the large meat processors in Fort Dodge brings down the average in Webster; the growth of appliance manufacturing brings the average up in Hamilton County. Even the more agriculturally dependent counties in the west have demonstrated growth in their manufacturing base.
- Wholesaling experienced less growth than manufacturing or retail measured by number of employees. On average, wholesaling establishments have added only two new jobs each, with a net gain of only six establishments over the twenty-five-year period. Average number of jobs is lower in the more agriculturally dependent sections of the case study area.
- The number of employees in construction and transportation-related firms has little direct correlation with the different levels of trade centers within a county. The few large businesses in Wright County have gained employees due to the consolidation of the grain elevator operations and the farm implement dealerships.

Recent shifts toward agglomeration, rapid growth of a small number of specialized firms, and reorientation of agriculturally based industries have tended to offset the individual community job increases and decreases. Changes in the number and type of business establishments (services excluded) is not directly correlated with shifts in employment, nor with a specific level in the trade center hierarchy.

Table 1.12 Changes in the Number of Jobs per Establishment by Industry Category and County, 1962 and 1987

	Const./Trans.		Manufactures		Wholesale		Retail	
County	1962	1987	1962	1987	1962	1987	1962	1987
Calhoun	8.7	4.0	4.6	9.5	3.6	7.4	2.1	4.1
Hamilton	5.1	4.9	36.7	58.6	4.8	12.5	3.7	7.1
Humboldt	7.3	5.5	15.1	19.6	3.3	5.0	2.7	5.0
Pocahontas	5.0	3.6	10.0	23.0	6.4	8.8	2.2	5.5
Webster	8.2	8.9	47.0	33.3	7.9	8.6	4.6	9.1
Wright	7.3	13.4	19.2	0.0	4.2	5.7	2.7	5.0
Average	*7.1*	*7.6*	*29.3*	*3.9*	*6.0*	*8.1*	*3.3*	*6.8*

Shifts in the Retail and Service Sectors

Examining shifts within a single retail or service SIC code shows that trends in merchandising or service delivery systems have impacted the levels of the trade center hierarchy at differential rates. The two-digit SIC codes used to carry out the analysis are explained in Table 1.13.

Trends in merchandising throughout the United States and in this section of Iowa have favored agglomeration in shoppers' goods (department store goods, apparel, furnishings etc.). Many old main streets have been diminished, and some even decimated, as people turn to new forms of retailing, such as the shopping center complex, the free-standing discount store, and the supermarket or the gas/convenience store outlet. New habits of eating out and fast-food franchising have reallocated food purchasing patterns.

Analysis of the graphs in Figure 1.7 leads to the following conclusions: (Note that the 1960 trade center level is used as the base against which to measure change. For example, Humboldt and Clarion are combined with Webster City in Figure 1.7 despite their dropping down to partial shopping centers by 1989.)

- The business base in retail and services has been seriously weakened over the past thirty years. The net loss of 484 retailing establishments far outnumbers the net gain of 172 in service businesses. This reflects the declining population and purchasing power base of the region, increasing scale of many retail operations, and greater ease in personal travel to

Table 1.13 Standard Industrial Classification Codes Assigned to Retail and Service Establishments

2-Digit SIC Code	Description
52	Building Materials and Garden Supplies
53	General Merchandise/Department Stores
54	Food Stores
55	Automotive and Service Stations
56	Apparel and Accessory Stores
57	Furniture and Home Furnishings
58	Eating and Drinking Establishments
59	Miscellaneous Retail
60	Financial Institutions
65	Real Estate Services
70	Hotels and Other Lodging
72	Personal Services
73	Business Services
75	Auto Repair and Parking
76	Other Repair Services
78	Motion Pictures
79	Amusement and Recreation Services
80	Health Services

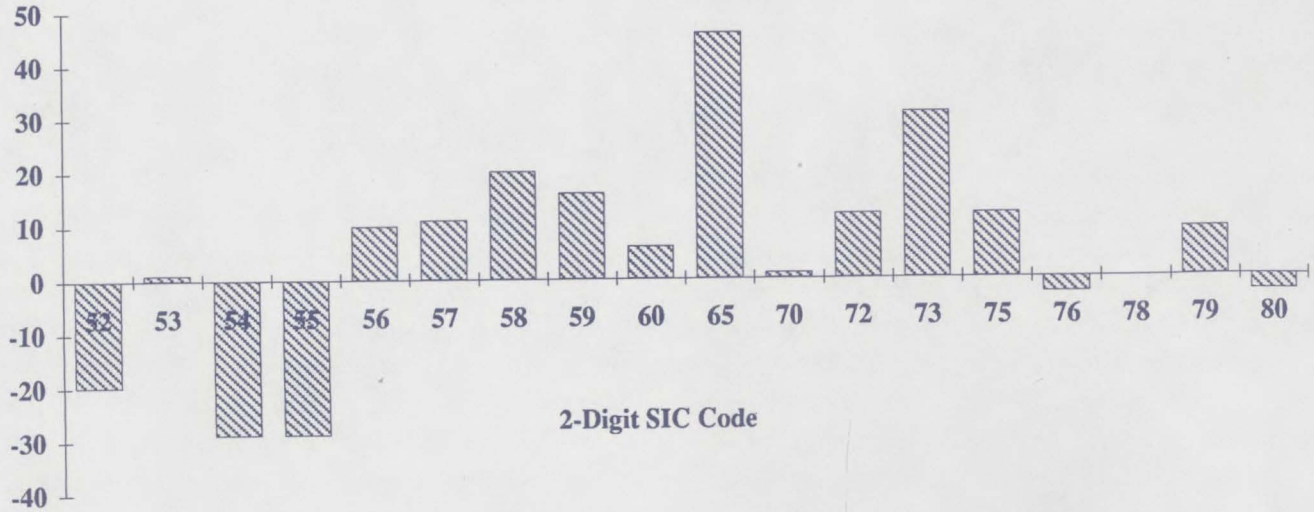
larger centers. Even Fort Dodge, the largest community, has not been able to retain its hospital-related health services, and households in the region now go to Ames for these essential services.

- Major restructuring of the building materials and the food and automotive industry occurred at all levels in the hierarchy. Losses ranged between 40 and 60 percent in the average number of establishments. Fifty-six communities had 411 fewer of these establishments in 1989 than in 1960.
- Restructuring of merchandising and fierce competition for the general merchandising dollar effectively eliminated all but Fort Dodge and the complete shopping center communities from this market. The case study area ended up with twenty-six fewer of these establishments. Minimum convenience centers, the group hardest hit by these trends, lost eleven out of thirteen outlets. Even the most thriving of these local cities, Webster City, lost a furniture store, a shoe store, Montgomery Wards, Sears, and J.C. Penney's, and residents now use the Crossroads shopping center complex between Webster City and downtown Fort Dodge for this type of shopping.
- Fort Dodge maintained its role as the general merchandising center because discount and shopping centers were developed on the east end of town. K-Mart, WalMart, and Target stores have clustered together to capture a critical mass of local purchasing power, leaving downtown Fort Dodge a wasteland for this highly competitive market.
- A mainstay of business life in the smallest communities—the local cafe or tavern—managed to hold on in the smallest towns, but lost out in the minimum and full convenience and partial shopping centers (twenty-nine communities lost fifty-one establishments). In many instances, small independent establishments have been replaced by fast food franchisers, particularly in the level 2 and 3 communities.
- Anomalies in retailing often occur because of the unique entrepreneurial skills of a particular retailer. A clothing store in Webster City and one in the much smaller town of Manson attract customers from a larger trade area than do the national discount/department stores in and around Fort Dodge. In the smaller community, customer loyalty has been built up over the years with superior merchandising techniques, attention to customer service and large inventories. These long-established businesses are thriving beyond expected levels.
- Real estate services are one of the few activities growing at all levels of the trade center hierarchy. Fifty-five percent of the net gain was in Fort Dodge, but the average number of outlets has increased in the minimum convenience centers by 700 percent. A six-fold increase in Webster City well exceeds the 200 percent increase in Fort Dodge. This type of establishment is obviously a basic business service, no matter how small the community.
- Smaller communities have been unable to retain as broad a mix of services as they had in 1960, and there are more complex interrelationships among the different cities. Many people are traveling longer distances for comparative shopping, but the specialization into fewer and larger firms means less convenience for those who would like to conduct their business closer to home. Several of the hamlets are now bedroom communities, the original downtowns abandoned and former businesses occasionally replaced by a gas/convenience store on the main highway.
- As the business base shrinks in total number of establishments, the quirks of historical accident and specialized family businesses become more apparent. How else can one explain the presence of the nation's largest John Deere implement dealership in Woolstock (city of 148 people) or the large "Mr. and Ms." factory outlet store in Webster city?

On average, the four bottom levels in the trade center hierarchy have lost between two and thirteen establishments each, with the biggest losses in full convenience centers. These mid-sized communities, which formerly enjoyed a relatively broad mix of goods and services, have been "squeezed" the most, and in 1989 there is less distinction between the functions of the four bottom levels.

Figure 1.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes

Secondary Regional Centers (N=1)



Complete Shopping Centers (N=3)

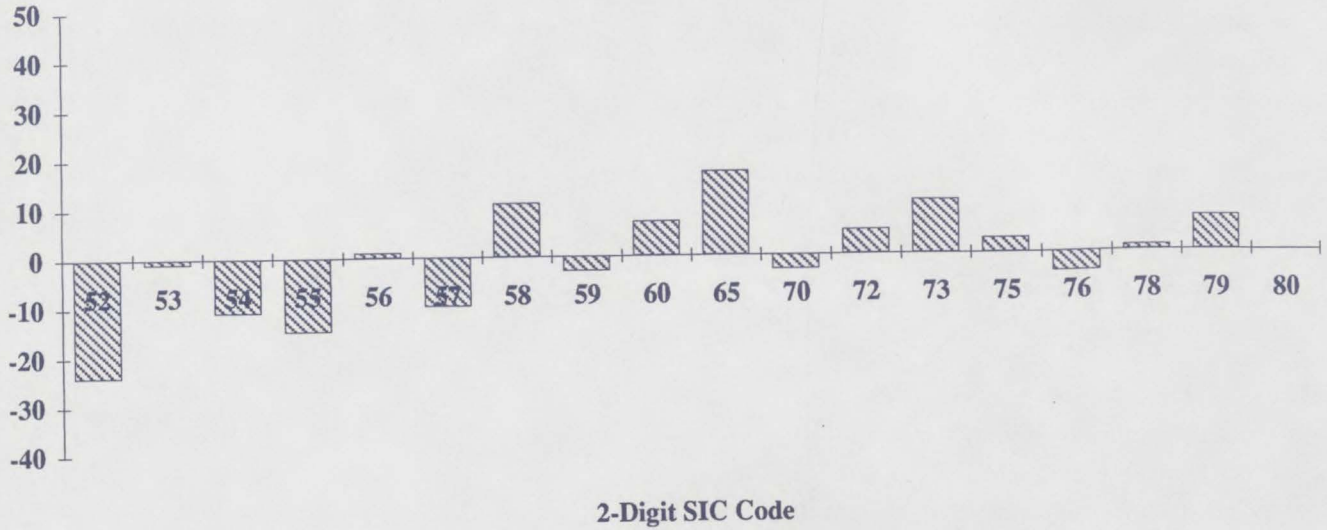
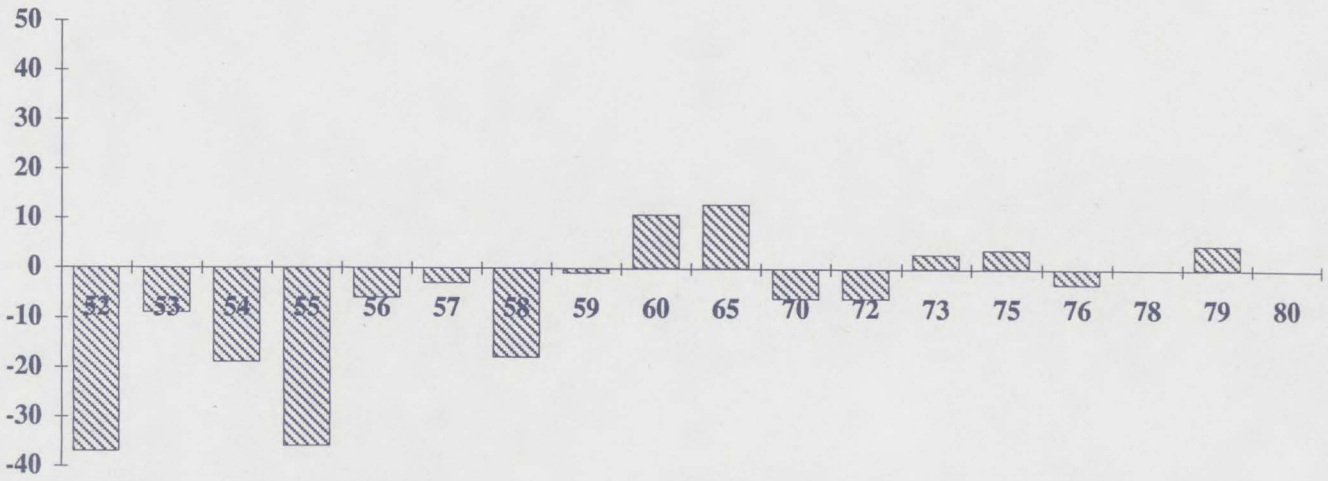


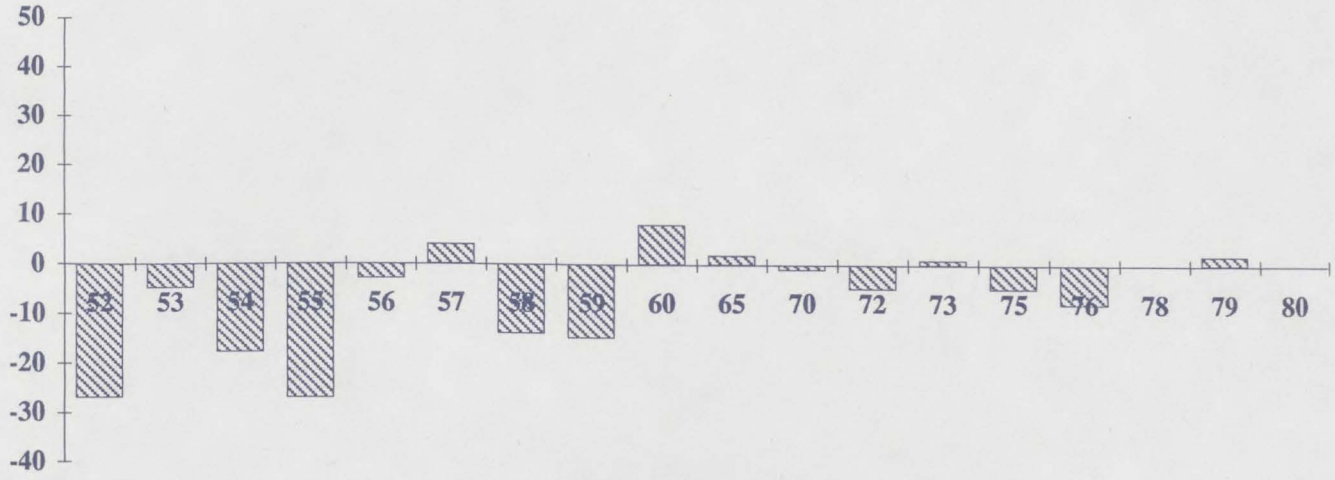
Figure 1.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes, continued

Partial Shopping Centers (N=6)



2-Digit SIC Code

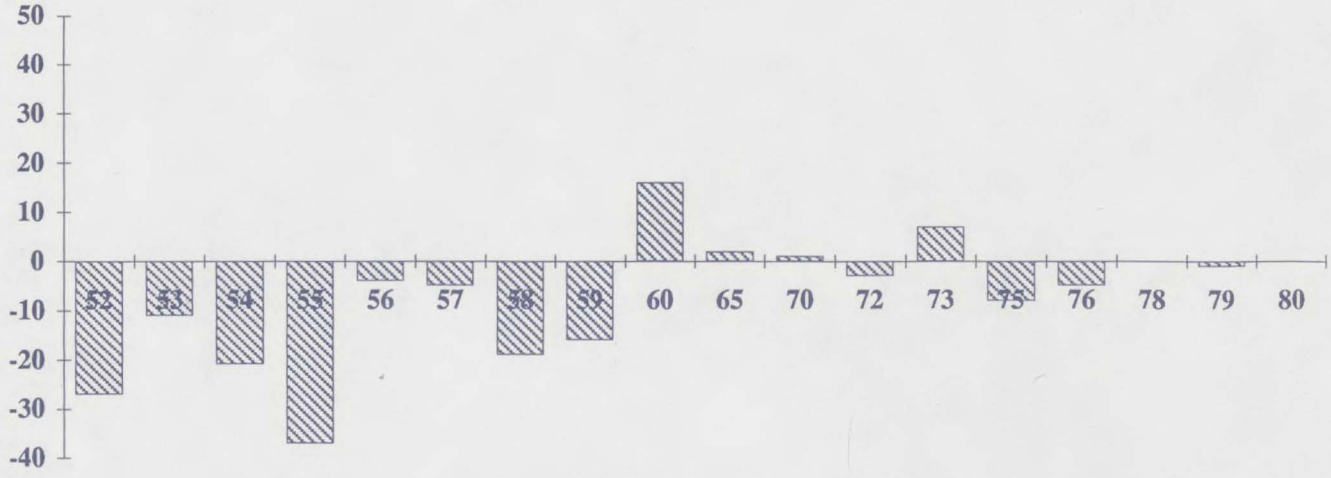
Full Convenience Centers (N=7)



2-Digit SIC Code

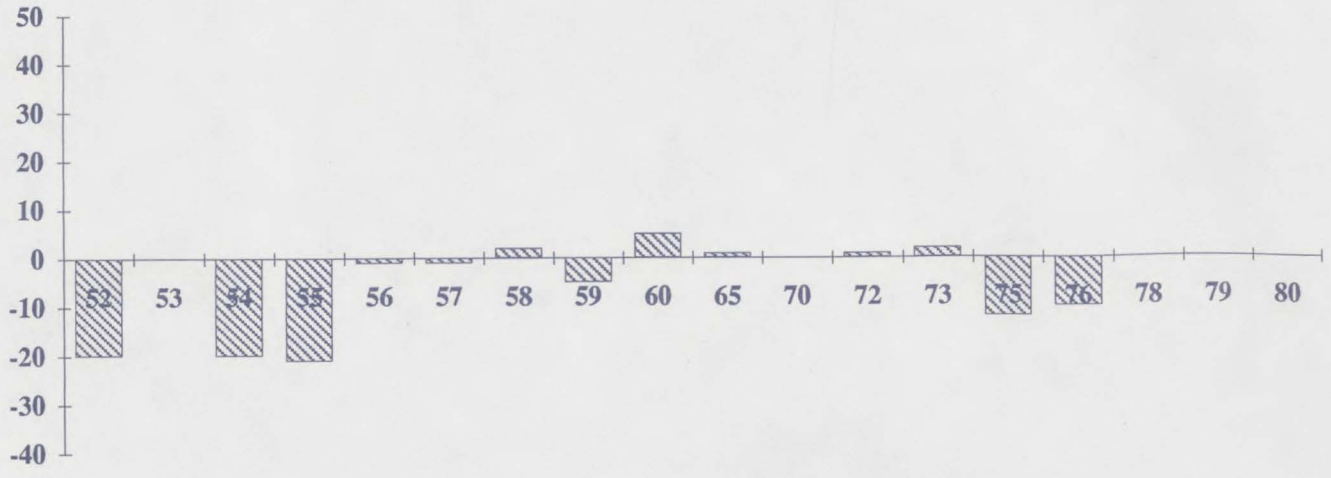
Figure 1.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes, continued

Minimum Convenience Centers (N=16)



2-Digit SIC Code

Hamlets (N=23)



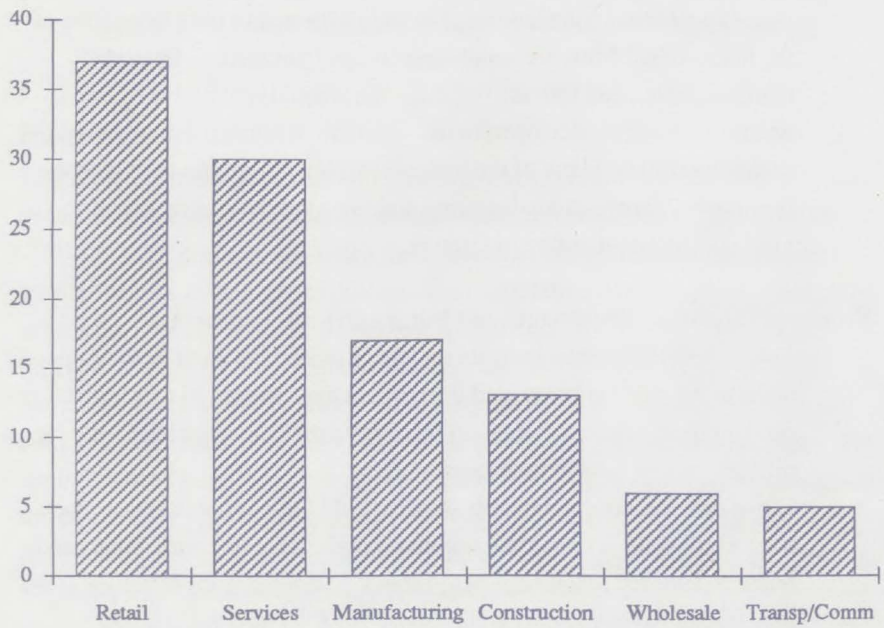
2-Digit SIC Code

Survey of Business Owners and Managers

A short questionnaire was mailed to businesses in four cities, Pocahontas, Manson, Dakota City and Farnhamville, which have a total of 192 establishments. They represent the bottom four trade center levels, since our primary interest is in the future economic vitality of the smaller communities as perceived by current business owners and managers. One hundred and nine responses provided a 69 percent return for the survey (see Appendix A, Table A.5).

Figure 1.8 shows the distribution of responses by business category—one-third from various retail establishments, one-quarter from service businesses, and the rest from a combination of manufacturing, construction and wholesale businesses. The survey was designed to provide detailed information on business ownership, site location, attitudes toward the business climate, and recent changes in lines of business.

Figure 1.8 Number of Responses by Standard Industrial Classification Code



Employment Opportunities

- Most businesses are small scale operations. Six out of ten have three or fewer full-time employees. Only fourteen establishments have ten or more full-time workers and only one has more than fifty. One hundred respondents reported a total of 660 full-time jobs, one-third of them with one large employer. Five of the fourteen firms with ten or more full-time workers are manufacturing establishments.
- The largest firm, located outside Pocahontas, manufactures hydraulic cylinders and employs over 225 persons. Purchased in 1975 from former owners, this business has become the major source of highly skilled and well paid jobs in the area and continues to expand. The list of the remaining firms with more than ten employees covers a broad range of activities—a bank, a commercial printer, a grain cooperative, a livestock feeds operation, a farm equipment dealer, an auto sales dealership, a microwave popcorn manufacturer, and a manufacturer of recreational vehicle cabinets.
- Job expansion in this farm-oriented economy depends on two almost opposing characteristics: an individual entrepreneur who takes a good idea and markets it to a growing national or international market, and, at the other end of the spectrum, the small business person who is service-oriented and content to make a decent living but rejects the goal of becoming a larger operation. There are more business people content to remain small in this section of Iowa, and they may be the most realistic basis for continued economic vitality. This was best expressed by one respondent, who said, "...My personal feeling on rural business is *not* the bigger the better. Small personal services seem to go over better."
- Food stores, eating and drinking establishments, and health services are the primary providers of part-time employment in these communities.

Age of Business Owners

- By the end of the decade many owners will be looking at retirement and opportunities to sell or close. People aged 50 to 64 own 42 percent of retail businesses and just over 30 percent of other types of businesses. People over age 65 own 20 percent of retail businesses and about 10 percent of all types of businesses. Four questionnaires were returned stating

that in the past two years the owner retired and the business ceased operation.

- No significant differences in age of entrepreneur exist between the different types of business, although there are no owners over 65 years in construction, transportation, wholesaling, eating and drinking establishments or apparel.
- Nearly 60 percent of business owners under 40 years of age started their business rather than acquiring it from a previous owner. Many of these persons have very small operations—often one or two employees—and several operate out of their homes.

Age of Business

- A surprising 40 percent of all businesses were started in the 1980s, despite the early 1980s being a time of economic downturns. Only 20 percent of all businesses were in operation before 1970. This indicates infusion of new entrepreneurship into these smaller communities rather than the expected abandonment and net losses in the number of establishments.
- Three firms with ten or more employees were started in the 1980s; three were purchased from non-family members. This can be viewed as a glass half-full or half-empty. The optimistic view is that new businesses are continuing to be created or taken over. The pessimistic view is that growth potential from the older established businesses is quite dismal.
- Almost half of the businesses created during the 1980s are in miscellaneous services. These include repair services, financial counseling, barbering, other business or personal services. All of these are small scale operations.

Role of Family Business

- The expectation that current business owners would be primarily members of families who started the business earlier proved to be myth. Only 10 percent say they acquired their business from another family member, and 25 percent say they purchased from non-family members. An extremely high 60 percent indicate they started the business.
- Half of the businesses created in the 1980s were started by the present owner.
- Only five firms are franchised operations and another seven are branches of other businesses. A large 88 percent of all establishments are independently owned.

Business Locations

- Slightly over half the businesses are located in the central business areas of these towns, one-fourth are on the highway away from downtown, and just under one-fifth are in the townships rather than within the city limits. While several of the former thriving "downtowns" of smaller communities have lost their economic role in the larger trade area, the central business districts are still the core locations for a large number of retail operations.
- Twenty businesses are located outside any city limits. Almost all are small construction operations or manufacturing establishments, including the largest manufacturing establishment. Only three businesses located outside the city boundaries were established before 1970. Decentralization of businesses over the past twenty years is made possible by nearly universal automobile ownership.
- Twenty-four businesses operate out of the home. Home-based firms were started primarily in the latter half of the 1970s and in the 1980s. Five of the home-based firms are small construction/contractors, five are manufacturing, and four are trucking. Surprisingly, only five of the twenty-four are service operations—the type of home occupation typical in urban settings. Many of the home-based operations are related to the farming economy—manufacturing hog pens, trucking agricultural products, and contracting to farmers.

Trends in Business Adjustments and Future Growth Prospects

- Twenty establishments indicate they have closed out parts of their operation in the past ten years, and thirty-eight have shifted to a different product. However, six out of ten firms state they have not made any significant adjustments to their product lines.
- Close-outs included comments such as "sold out our hardware products—not enough walk-in trade to keep inventory"; "dropped duck blinds and boats and shifted to [camouflage] fabrics"; "discontinued furniture"; "no longer haul livestock, only freight now"; and "closed out children's

wear." More optimistic comments included: "added ladies apparel"; "expanded the trucking and spreading"; "replaced old equipment with fiber optic"; "added computers to set type and make up forms"; "added excavator services"; and "added gift shop items." Resiliency to accommodate loss of customer base and take on slightly new lines indicates how marginal several of these businesses are. A "mix and match" approach to survival is also evident—a barber selling garage door openers, an implement dealer turning to lawn mowers and snowblowers, an apparel store adding gift items, etc.

- One-half see a stable or flat future market for their product or services, but slightly more than one-third believe there is a growing demand. Only thirteen respondents believe that the market will decline. Firms doing manufacturing, working with building materials, or providing miscellaneous services are generally more optimistic about growth prospects than other types of businesses. It may be that the declining elements of the economy—agricultural implement dealerships, general merchandising, apparel stores—have already disappeared from the local scene, and remaining businesses are able to survive with fewer competitors. Several respondents say that the declining farm economy has meant that they have to look further afield for customers and travel longer distances to serve their clients.

Findings

This more detailed look at a small geographical area corroborates, and in some instances intensifies, the major regional trends observed in the Upper Midwest.

Large centers have expanded their sphere of influence at the expense of smaller centers even more in this case study area than in the region. In part, this is because the case study area does not contain any metropolitan or primary regional centers to counterbalance shifts occurring at the lower levels of the hierarchy. It is also because the Ford Dodge area is heavily dependent on agriculture and the farm population has emptied out over the past three decades. The declining farm population has affected the whole area around the six counties in the case study. Very close spacing of towns in the farm belt and an excellent transport system facilitates agglomeration of business and service activities in the larger cities such as Ames and Des Moines.

"Move downs" in the trade center hierarchy are proportionately more frequent here than for either the state or the Upper Midwest region. We still see stability in the structure of settlements, but many of the communities at the bottom three levels are weaker members of their level than they were in 1960. Today there is even less distinction between a hamlet and a minimum convenience center, since both have lost a sizable segment of their commercial activity.

Communities continue to survive, but their functions have changed or diminished. There are more retirement communities and bedroom communities with fewer local schools and institutions. Although no physical abandonment of any town occurred over the past thirty years, many communities are fearful that a dormitory function is not going to provide the same "quality of life."

The most striking examples of changes which are similar to but more intensive than those found in the Upper Midwest region include:

- the rate of population decreases and the decline in share of population living on farms;
- "graying" of the population, with people remaining for their retirement years and high school graduates leaving, combined with a lower birth rate.
- loss of businesses in the bottom three levels of the trade center hierarchy, resulting in a near disappearance of a commercial function in several of the hamlets and minimum convenience centers;
- overall stability in the hierarchy, but a much weakened position of communities within their level.

This micro-level analysis also found that reliance on the number of establishments as an indicator of economic vitality tends to become weaker as one moves down the trade center hierarchy. This is most vividly illustrated in the manufacturing category. In the bottom three levels, manufacturing has continued to maintain its base when measured against the number of establishments, but the business survey reveals that the large majority are extremely small firms, employing perhaps two to five persons. The loss of two large meat-packing industries in Fort Dodge far outweighs any gains in new industrial establishments in any of the smaller towns.

A much more complex pattern of interdependence among trade centers has emerged in order to allow independent communities to survive despite the fact that fewer of them have the critical mass necessary for a successful business

function. People travel greater distances to work than in 1960, and workers from larger cities commute to smaller cities, and vice versa. Households find they can enjoy the advantages of a small town quality of life and still have access to basic services such as hospital care, schooling, employment, or recreation outside their community due to increased mobility.

These smaller towns provide affordable and good quality housing. It appears that the costs of maintaining the infrastructure of highways, utility systems, schools, and churches are not yet imposing too heavy a property tax burden and some rearrangement in cost sharing is possible in the future. There are still opportunities to earn a living in small-scale businesses and an occasional unusual niche for a local business to penetrate a wider market.

CHAPTER 2. MONTANA CASE STUDY

Profile of the Case Study Area

Setting

The case study area selected in Montana is located in the southeastern section of the state and includes ten counties. The area is centered around two major cities, Miles City and Glendive, and borders North Dakota to the east and Wyoming to the south. The Missouri River extends along the northernmost county in the study area. Interstate 94 and the Yellowstone River pass through the middle. Three of the area's major trade centers are located on the interstate (Figure 2.1).

The region encompasses 25,643 square miles and accounts for 18 percent of the total land area of Montana. It is sparsely populated, with densities ranging from .5 to 4.0 persons per square mile. It contains two complete shopping centers, two partial shopping centers, one full convenience center, five minimum convenience centers, and twenty-one hamlets (Figure 2.2). Much of the land is relatively flat, and the semi-arid climate makes it suitable for dry land wheat farming and ranching. Subbituminous coal and lignite are abundant, though they lie at great depth. In addition, pockets of oil and gas exist. The region's history reflects its economic dependence on these natural resources and its susceptibility to cycles in the energy industry has resulted in a series of boom/bust periods.

The case study area, as part of a larger region, has undergone changes in its economic structure and functions. Its trade centers look very different today than they did thirty years ago and have different economic relationships with one another, as well as with larger regional centers. Many residents travel to the closest larger centers, such as Billings, Montana, and Dickinson, North Dakota, to shop, catch airplanes, and get specialized health care. The main roads in the area are two-lane highways, some of them unpaved. The placement of the highways, particularly I-94, has had a major impact on the economic vitality of particular towns. Some of those that were bypassed—Ismay for example—are skeletons of what they once were due to the increased accessibility to other trade centers.

Population Change

Population decreased between 1960 and 1990 in all counties in the case study area except Rosebud (Table 2.1). (See Figure 2.3 for map showing county boundaries.) Although some counties grew in the 1970s, all but one subsequently declined in the 1980s. Rates of decrease varied substantially. Carter, Prairie, and Treasure counties had decreases of 35 percent or more. The rest of the counties had decreases ranging from 11 percent to 32 percent.

In sharp contrast, Rosebud County's population increased 66 percent. Most of this growth can be attributed to the high industrial growth in the Colstrip area, the increase in open pit coal mining around Birney, and the growth of tourism and recreation in and around the Big Sky resort area.

The problems of declining population are compounded by the already sparsely settled nature of this region. Only Custer and Dawson counties had over three persons per square mile in 1990. Not surprisingly, the two major centers of the region, Miles City and Glendive, are located in these counties. There has been sporadic population growth between 1960 and 1990, but not enough to reverse a general trend of decline. During the same period, the state's population grew by 18 percent and has had steady, albeit limited, growth in each decade since 1960.

Figure 2.1 Regional Map for Montana Case Study Area

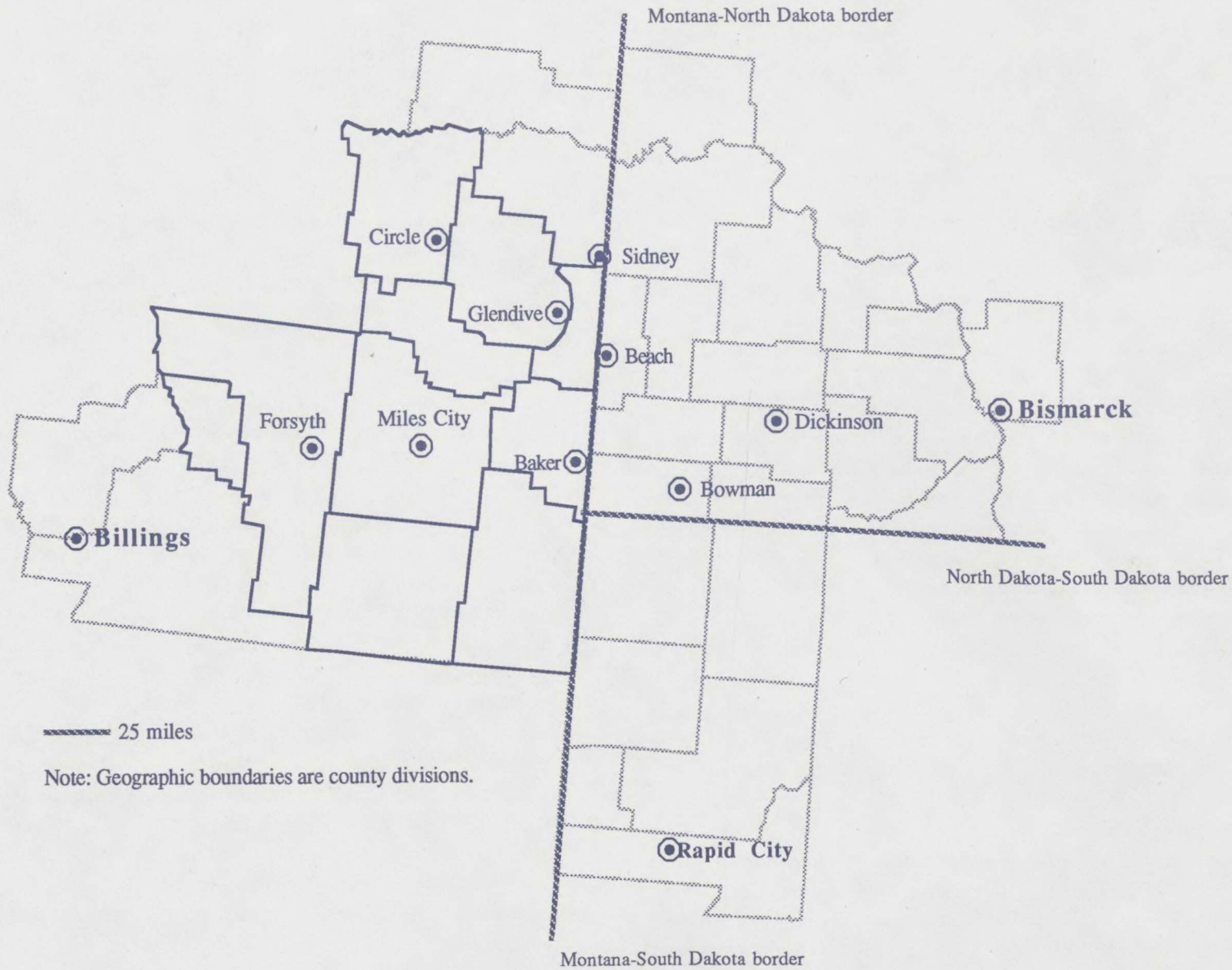


Figure 2.2 Montana Case Study Area, 1989

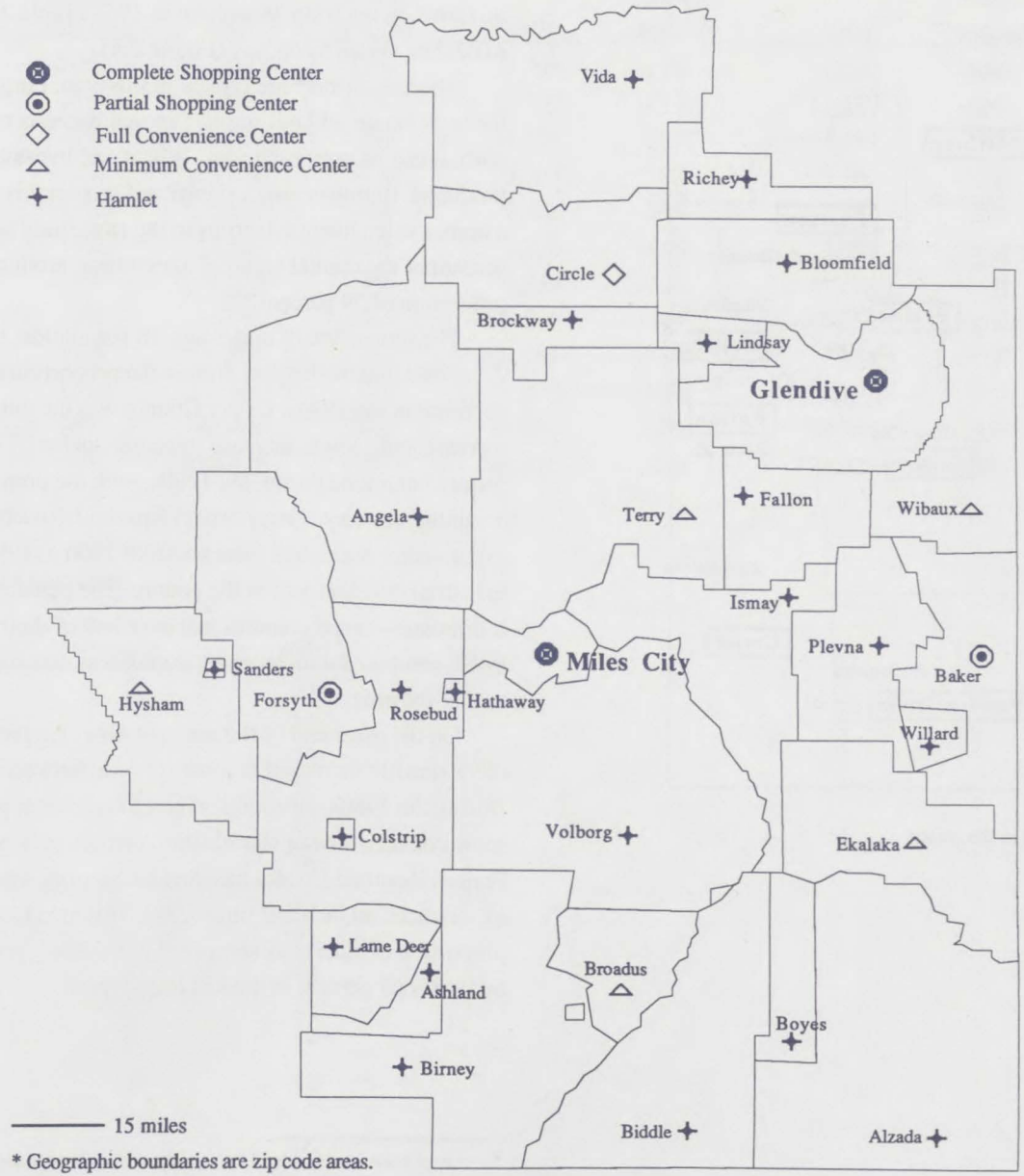
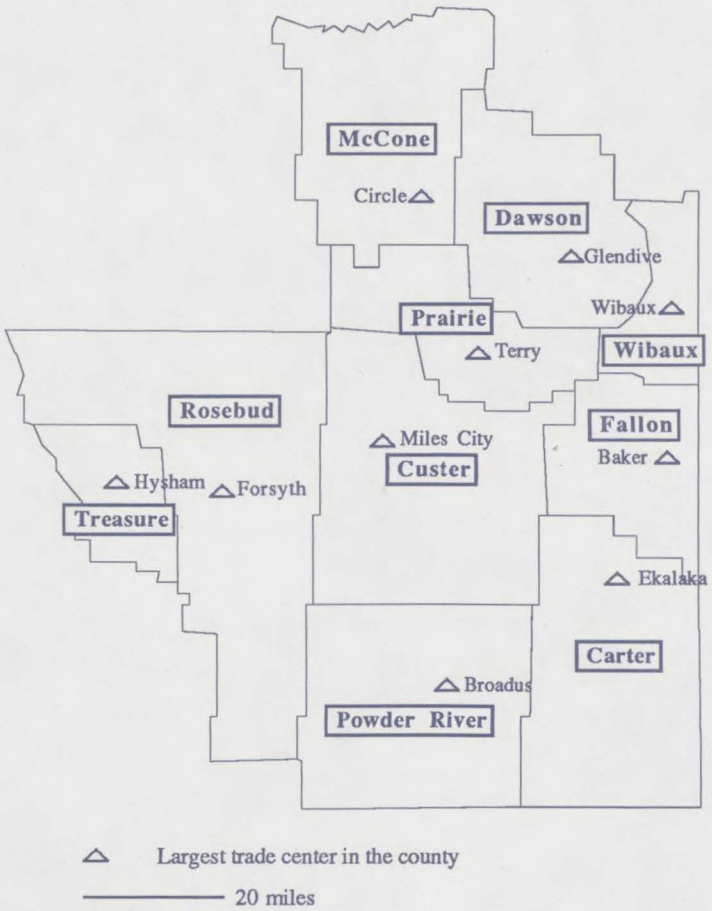


Figure 2.3 County Map of Montana Case Study Area



As in the state and the Upper Midwest, farm population has also been declining steadily. In 1980, 16 percent of the case study area's population lived on farms, down from 36 percent in 1950 (Table 2.2). As can be seen, the amount of decline varies by county (Figure 2.4).

Bonanza farms* are typical in this area. Large farms are necessary because the dry climate will not support annual harvests of all the land, therefore only a portion can be used each year. Wheat and livestock are the primary commodities produced. Barley is also a significant crop in this area. Livestock products have a higher value than cash crops in the case study area. Livestock accounts for 68 percent of the market value of agricultural products, exceeding the state's proportion of 59 percent.**

The proportion of under-age-18 population, too, has been declining. Table 2.3 shows that the biggest drop in the proportion of school-age children occurred in the 1970s. Custer County was the only county that had a numerical increase and a slight increase in people under 18 years old during the 1970s. The pattern continued during the 1980s, with the proportion of under-18-year-olds declining in every county except Rosebud. Rosebud was also the only county to experience a numerical increase from 1960 to 1990, a result of the high level of industrial development in the county. The percentage change from 1960 to 1990 is dramatic—some counties lost over half of their under-age-18 population. This trend, combined with an aging population, has significantly shifted the age structure of the area.

On the other end of the age spectrum, the proportion of people 65 years and older steadily increased in most counties between 1960 and 1990 (Table 2.4). During the 1980s, all counties increased in their proportion of elderly, with some counties having significant increases such as Dawson, Powder River, and Prairie. Rosebud County has the lowest proportion of elderly, though it too has experienced an increase since 1960. This area has a slightly above-average proportion of elderly as compared to the state, yet the state's elderly have grown by nearly 63 percent in the last thirty years.

* Large scale farms with all the modern scientific appliances.

** U.S. Department of Commerce, Bureau of the Census, *Census of Agriculture*, 1987, pp. 140-47.

Table 2.1 Population by County, 1960-1990

County	1960	Change 1960-70	1970	Change 1970-80	1980	Change 1980-90	1990	Change 1960-90
Carter	2,493	-20%	1,997	-10%	1,799	-17%	1,502	-40%
Custer	13,227	-8%	12,174	8%	13,109	-11%	11,637	-12%
Dawson	12,314	-8%	11,269	5%	11,805	-20%	9,459	-23%
Fallon	3,997	1%	4,050	-7%	3,763	-18%	3,101	-22%
McCone	3,321	-13%	2,875	-6%	2,702	-16%	2,272	-32%
Powder River	2,485	15%	2,862	-12%	2,520	-17%	2,090	-16%
Prairie	2,318	-24%	1,758	4%	1,836	-25%	1,378	-41%
Rosebud	6,187	-3%	6,032	64%	9,899	4%	10,259	66%
Treasure	1,345	-31%	933	5%	981	-11%	874	-35%
Wibaux	1,698	-13%	1,480	0%	1,476	-19%	1,191	-30%
Case Study Area	*49,385*	*-8%*	*45,430*	*10%*	*49,890*	*-12%*	*43,763*	*-11%*
Montana	**674,767**	**3%**	**694,409**	**13%**	**786,690**	**1%**	**794,329**	**18%**

Table 2.2 Farm Population (in percents)

County	1950	1960	1970	1980
Carter	61	58	63	47
Custer	15	13	11	7
Dawson	27	17	13	10
Fallon	41	30	24	12
McCone	64	62	49	46
Powder River	70	63	45	31
Prairie	34	37	43	32
Rosebud	37	25	25	9
Treasure	59	57	49	41
Wibaux	60	50	48	24
Case Study Area	*36*	*29*	*25*	*16*
Montana	**23**	**16**	**12**	**7**

Figure 2.4 Farm and Nonfarm Population by County, 1950-1980

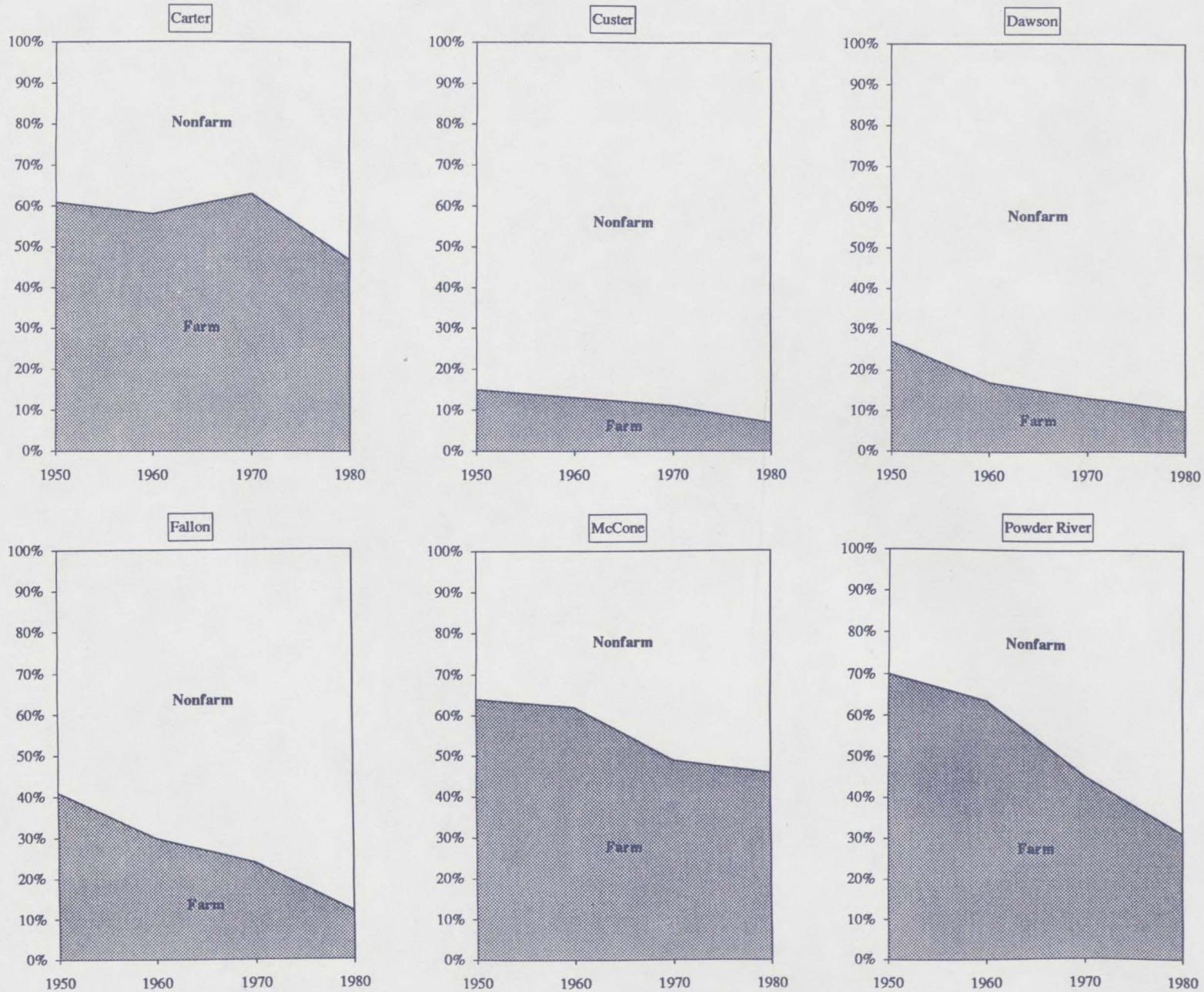


Figure 2.4 Farm and Nonfarm Population by County, 1950-1980, continued

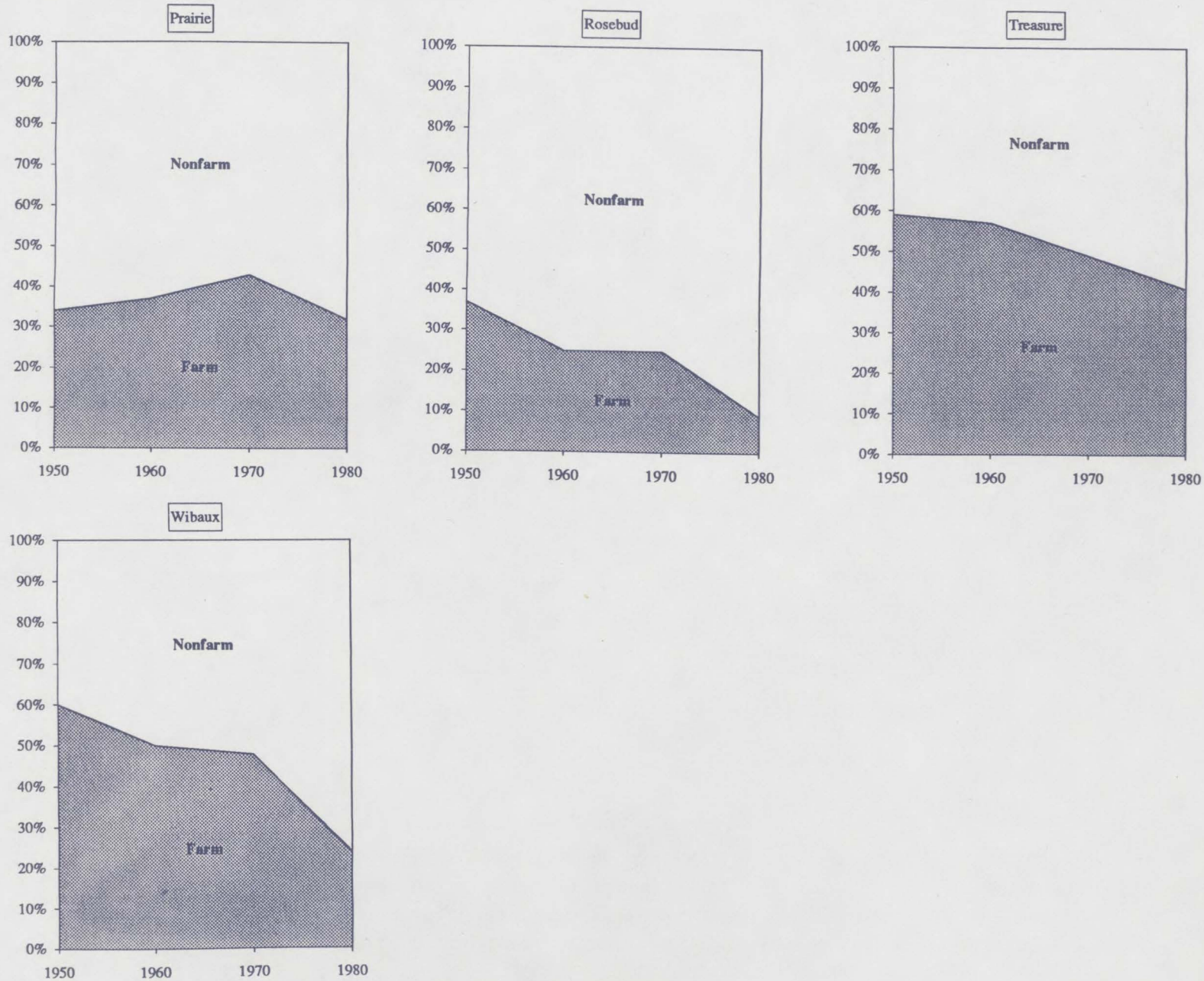
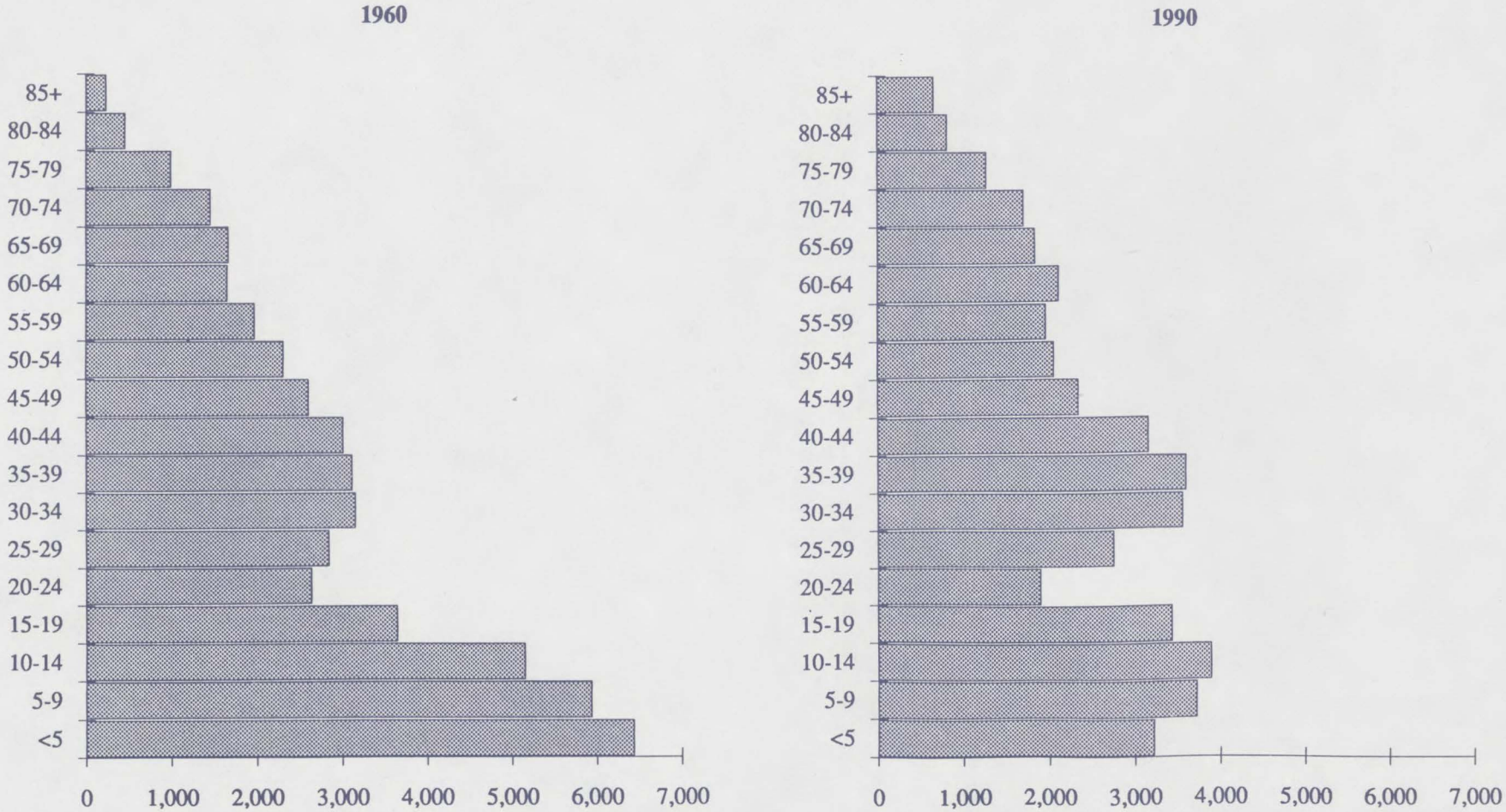


Figure 2.5 Age Structure of Case Study Area, 1960 and 1990



As seen in Figure 2.5, the age structure has flattened out in the last thirty years. There are roughly the same number of those in their family-formation years (between the ages of 25 and 44), yet there are far fewer children under age 15 in 1990 than in 1960. The bulge of 30- to 44-year-olds will continue to move up the age scale, furthering the already aging population. Increased life expectancy and its impact on the age structure in this region will play a significant role in the demand for specific services such as health, the level of purchasing power, and the future ownership of local businesses.

Table 2.3 Population Under the Age of 18 (in percents)

County	1960	1970	1980	1990	Change 1960-90
Carter	38.3	34.7	27.8	25.7	-59.6
Custer	37.8	27.0	29.5	27.6	-35.7
Dawson	43.4	40.5	30.9	27.9	-50.6
Fallon	41.8	39.7	32.0	30.6	-43.2
McCone	42.1	38.4	33.9	28.9	-53.0
Powder River	39.6	40.2	30.7	27.5	-41.5
Prairie	40.3	34.1	29.0	23.7	-65.0
Rosebud	41.5	38.8	37.1	37.4	49.3
Treasure	42.5	36.4	29.6	28.0	-57.1
Wibaux	41.3	37.4	32.5	27.7	-53.0
Case Study Area	*40.7*	*35.8*	*31.8*	*30.1*	*-34.6*
Montana	**38.6**	**36.5**	**29.5**	**27.8**	**-14.7**

Table 2.4 Population Age 65 and Older (in percents)

County	1960	1970	1980	1990	Change 1960-90
Carter	10.3	13.0	15.2	18.8	9.8
Custer	11.8	12.7	13.2	17.1	27.4
Dawson	7.4	9.2	9.7	15.1	57.3
Fallon	8.9	8.8	10.5	14.9	29.9
McCone	9.8	10.0	10.3	16.5	15.2
Powder River	9.7	10.1	10.1	15.7	36.1
Prairie	11.1	13.7	17.9	24.7	32.1
Rosebud	10.4	10.2	5.9	7.2	14.8
Treasure	9.0	10.9	13.1	15.7	13.2
Wibaux	11.3	11.6	13.6	19.9	23.5
Case Study Area	*9.9*	*10.8*	*10.7*	*14.4*	*29.9*
Montana	**9.7**	**9.9**	**10.7**	**13.3**	**62.8**

Employment Patterns

As in the rest of Montana, the number of jobs in the case study area grew tremendously between 1962 and 1987 (Table 2.5). Employment trends varied greatly by county and reflect the boom/bust cycles of natural resource extraction. Most counties gained jobs in the 1970s, a result of the high growth of the oil and gas exploration industry as well as the coal industry. Rosebud County had an extraordinary 214 percent increase in jobs in the 1970s. These were the years when coal-fueled electrical generating units were built in Colstrip. Only two counties, Carter and Prairie, lost jobs during this time. Highly dependent on agriculture, they did not participate in the energy boom. They also had the greatest population declines.

The boom ended in the early 1980s. The number of jobs in all counties except for Rosebud decreased between 1980 and 1987. Rosebud County's strong growth in the 1970s continued at a much lower rate into the 1980s. The state was not immune—it too experienced a 1 percent decrease in total employment in the 1980s.

An examination of retail employment data, the only employment data set by industry category that is complete, shows patterns similar to those for overall employment data. Although retail jobs grew by 51 percent between 1962 and 1987, they decreased by 17 percent between 1980 and 1987 (Table 2.6). The average annual increase in retail jobs in the case study area from 1962 to 1970 was 233 jobs; between 1970 and 1980, 432 jobs; and between 1980 and 1987, an annual loss of 175 jobs. Although all the counties lost jobs during the 1980s, the biggest losers were Carter, McCone, and Prairie counties, which also had the biggest population losses during the 1980s. The diversity among counties is seen when comparing percentage change in the retail sector. From 1962 to 1987, Carter, Fallon, Prairie, and Treasure counties lost approximately a third or more of their retail employees. In contrast, Custer, Powder River, and Rosebud counties had extremely high growth of retail jobs between 1962 and 1987 (though Powder River's retail employment base was very small in 1962—only 55 jobs).

Table 2.5 Number of Jobs for All Industries by County, 1962-1987

County	1962	Change 1962-70	Annual Avg. Chg.	1970	Change 1970-80	Annual Avg. Chg.	1980	Change 1980-87	Annual Avg. Chg.	1987	Change 1962-87
Carter	97	76%	10%	171	-13%	-1%	149	-6%	-1%	140	44%
Custer	1,860	27%	3%	2,369	49%	5%	3,537	-8%	-1%	3,242	74%
Dawson	1,739	27%	3%	2,200	53%	5%	3,364	-27%	-4%	2,470	42%
Fallon	538	16%	2%	623	21%	2%	753	-12%	-2%	659	22%
McCone	190	49%	6%	283	78%	8%	503	-24%	-3%	383	102%
Powder River	93	248%	31%	324	0%	0%	325	-16%	-2%	273	194%
Prairie	168	9%	1%	183	-9%	-1%	167	-44%	-6%	94	-44%
Rosebud	384	92%	12%	739	214%	21%	2,324	15%	2%	2,675	597%
Treasure	55	16%	2%	64	67%	7%	107	-8%	-1%	98	78%
Wibaux	48	60%	8%	77	65%	6%	127	-26%	-4%	94	96%
Case Study Area	*5,172*	*36%*	*4%*	*7,033*	*61%*	*6%*	*11,356*	*-11%*	*-2%*	*10,128*	*96%*
Montana	**106,162**	**22%**	**3%**	**129,710**	**59%**	**6%**	**206,229**	**-1%**	**0%**	**204,176**	**92%**

Table 2.6 Number of Retail Jobs by County, 1962-1987

County	1962	Change 1962-70	Annual Avg. Chg.	1970	Change 1970-80	Annual Avg. Chg.	1980	Change 1980-87	Annual Avg. Chg.	1987	Change 1962-87
Carter	45	18%	2%	53	2%	0%	54	-46%	-7%	29	-36%
Custer	570	39%	5%	792	40%	4%	1,108	-7%	-1%	1,027	80%
Dawson	512	30%	4%	664	36%	4%	904	-19%	-3%	728	42%
Fallon	191	15%	2%	220	-7%	-1%	204	-35%	-5%	132	-31%
McCone	60	28%	4%	77	87%	9%	144	-43%	-6%	82	37%
Powder River	55	67%	8%	92	25%	3%	115	-16%	-2%	97	76%
Prairie	68	-7%	-1%	63	16%	2%	73	-56%	-8%	32	-53%
Rosebud	160	48%	6%	236	100%	10%	471	-6%	-1%	445	178%
Treasure	32	-13%	-2%	28	-25%	-3%	21	-5%	-1%	20	-38%
Wibaux	19	111%	14%	40	-18%	-2%	33	-42%	-6%	19	0%
Case Study Area	*1,712*	*32%*	*4%*	*2,265*	*38%*	*4%*	*3,127*	*-17%*	*-2%*	*2,592*	*51%*
Montana	**28,711**	**24%**	**3%**	**35,692**	**54%**	**5%**	**55,091**	**5%**	**1%**	**57,625**	**10%**

Note: 1987 retail figure for Wibaux is an approximation.

The Trade Center Hierarchy

Population Changes by Trade Center Class

Trade centers, like the counties in which they are located, have also lost population. Table 2.7 shows that all trade centers have experienced heavy population loss in the past decade, though some places were already experiencing decline as early as the 1950s. (Note that population figures refer to the incorporated city's population and excludes the small portion of the population that lives in the rest of the zip code district.)

Uniform patterns of growth or decline were not the rule during the last thirty years. For example, the two complete shopping centers, Miles City and Glendive, declined by 7 percent and 11 percent, respectively, from 1960 to 1970. Glendive's population continued to decline through the next two decades due to its economic dependence on the Burlington Northern Railroad line. When the line was abandoned, the town was left without its main source of employment and income. Miles City's population change was more cyclical—a growth of 6 percent in the 1970s and a decline of 12 percent in the 1980s. Miles City captured regional health facilities, educational facilities, and federal offices such

Table 2.7 Population Change by Place and Trade Center Class, 1950-1990

Level	Trade Center Class	Place	1960	Change 1960-70	1970	Change 1970-80	1980	Change 1980-90	1990	Change 1960-90
3	Complete shopping	Glendive	7,058	-11%	6,305	-5%	5,978	-20%	4,764	-33%
3		Miles City	9,665	-7%	9,023	6%	9,602	-12%	8,416	-13%
	Level 3 Total Change		*16,723*	*-8%*	*15,328*	*2%*	*15,580*	*-15%*	*13,180*	*-21%*
4	Partial shopping	Baker	2,365	9%	2,584	-9%	2,354	-23%	1,818	-23%
4		Forsyth	2,032	-8%	1,873	36%	2,553	-18%	2,085	3%
	Level 4 Total Change		*4,397*	*1%*	*4,457*	*10%*	*4,907*	*-20%*	*3,903*	*-11%*
5	Full convenience	Circle	1,117	-14%	964	-3%	931	-14%	805	-28%
	Level 5 Total Change		*1,117*	*-14%*	*964*	*-3%*	*931*	*-14%*	*805*	*-28%*
6	Minimum convenience	Broadus	628	27%	799	-11%	712	-20%	572	-9%
6		Ekalaka	738	-10%	663	-6%	620	-30%	433	-41%
6		Hysham	494	-24%	373	20%	449	-20%	361	-27%
6		Terry	1,140	-24%	870	7%	929	-29%	656	-42%
6		Wibaux	766	-16%	644	21%	782	-20%	628	-18%
	Level 6 Total Change		*3,766*	*-11%*	*3,349*	*4%*	*3,492*	*-24%*	*2,650*	*-30%*
7	Hamlet	Ismay	59	-32%	40	-23%	31	-39%	19	-68%
7		Plevna	263	-28%	189	1%	191	-27%	140	-47%
7		Richey	480	-19%	389	7%	417	-38%	259	-46%
	Level 7 Total Change		*802*	*-23%*	*618*	*3%*	*639*	*-35%*	*418*	*-48%*

as the Bureau of Land Reclamation. This focus hurt Glendive's economy while it boosted Miles City's and made it the *de facto* capital of southeastern Montana.

Trade center population losses ranged from 12 percent to 39 percent during the 1980s. Smaller places lost a greater percentage of their population bases. Hamlets suffered the heaviest losses, with average declines of 35 percent. Minimum convenience centers as a group also declined, losing over a fifth of their population in the 1980s. The small growth of hamlets and minimum convenience centers in the 1970s was not enough to offset losses from the 1960s and 1980s. Overall, in the past thirty years hamlets have lost nearly half of their population and minimum convenience centers have lost nearly a third.

The partial shopping centers of the region, Baker and Forsyth, are the "healthiest" in terms of their overall change in population but, nonetheless, experienced an overall 11 percent decrease. Baker's spurt of growth occurred during the 1960s, whereas Forsyth grew 36 percent during the 1970s, a direct result of the energy boom. Forsyth was the only place to record overall population growth during the study period.

Trade Centers That Moved Levels

The trade center hierarchy in the case study area as a whole was very stable. Only two places in the case study area moved levels between 1960 and 1989. (A trade center is said to have "moved" when it has gone from one level of the hierarchy to another, e.g., from a partial shopping center to a complete shopping center. A "move" up or down the hierarchy indicates a dramatic change in the trade function of a place, either an increase or decrease in both its number of firms and its sphere of influence.) Baker moved up from a full convenience to a partial shopping center. All the other places that moved up a level in Montana are in the western half of the state. Circle moved down from a partial shopping to a full convenience center. Only one other place in the state moved down a level, Great Falls, which is located in the western third of the state. Baker is approximately 77 miles from the closest regional center, Miles City; Circle is 45 miles from the other regional center, Glendive. Although neither of these places is located on the interstate highway, this does not automatically result in the same pattern of growth or decline. Distance to other major trade centers and local history are more important factors in determining these centers' economic vitality.

In 1960, Baker had an average number and type of businesses for a full convenience center. Substantial growth occurred in several industry categories, so that by 1989 Baker was classified as a partial shopping center. Baker has significantly more transportation and communications establishments than average, even at the partial shopping center level. In addition, construction increased 167 percent, services 127 percent, and wholesaling 100 percent. Retailing's increase of 23 percent, though modest, counters the trend in the seven-state region, where the average number of retail establishments in partial shopping centers decreased 15 percent. Overall, Baker has adapted to the larger economic and demographic influences, such as the centralization of functions in larger trade centers, the consolidation of agriculture, and the population migration from rural to urban areas, and nearly doubled its total number of establishments.

Interviews with residents of Baker indicated that the community has been subject to the larger forces shaping retailing. Recently, it lost hardware, jewelry, and women's clothing stores; a service station; two lumber yards; three implement dealers; and a "mini-store." New businesses such as a gift store, a florist, a fabric store, a notions store, and a Radio Shack have offset the closings. Overall, Baker gained ten retail establishments over the thirty-year period, though the growth appears to be in marginal operations that are highly sensitive to ups and downs in the national and local economies. For agricultural machinery parts, many people in Baker travel to Miles City or Glendive, in Montana, or to Beach or Bowman, North Dakota. Inventories for these products are kept necessarily low by wholesalers because of their high costs. This feature has prompted a change in the distribution of these parts, favoring larger centers which are able to draw business from larger trade areas.

According to local interviews, Baker, and other communities dependent on agriculture, have been hurt by the federal Conservation Reserve Program (CRP). According to data from the 1987 Census of Agriculture, out of all the counties in the study area, Fallon and McCone counties (home to Baker and Circle, respectively) have the highest percentage of their farm acres in the program. Interviewees said that a number of the farmers who participate in the program are using the funds to pay off land debt. This has had a negative impact on "downtown" businesses that rely on farm money. In essence, CRP has not led to an increase in farmers' spending power. Furthermore, the program hurts the grain elevator business because of decreased production. These interviewees'

negative perceptions of the CRP primarily stemmed from economic considerations rather than environmental or public policy concerns.

Baker has been able to endure its losses, most of which have occurred in the past ten years, because it is strong in several industry categories. The construction and service industries continue to be vital elements of the local economy. Retail establishments continue to account for over a third of Baker's total businesses. In addition, Baker's remoteness has helped it maintain its viability as a trade center; its competition is a significant distance away. Baker is "in the middle of nowhere": it is 220 miles to Billings, 215 miles to Bismarck, North Dakota, and 210 miles to Rapid City, South Dakota.

In 1960, Circle was a weak partial shopping center, falling well below average in manufacturing, wholesale, retail and services. Thus, it is not surprising that by 1989 it had moved down a level. Even as a full convenience center, it still has fewer retail and total establishments than average. Circle's total number of establishments increased only slightly, from forty-five to fifty-five in 1989, compared to an average of seventy-two establishments for full convenience centers in the Upper Midwest. Retailing decreased 38 percent and construction decreased 17 percent. However, both manufacturing and communications and transportation increased 200 percent; wholesaling increased 125 percent; and services increased 150 percent. Nevertheless, Circle's growth was not enough for it to keep pace with other trade centers of its class.

Circle's "Main Street" looks empty. Retail establishments dropped from twenty-six in 1960 to sixteen by 1989. The decrease in world agricultural prices, particularly wheat, hurt local businesses, which cater primarily to farmers and ranchers. The remaining businesses are marginal and many people moonlight at appraising, selling hail insurance, buying livestock, and other types of work. The two major businesses in Circle are the Rural Electrification Administration and the Mid-Rivers Telephone Cooperative. Circle also has a large agricultural implement dealership that draws from a wide trade area. It lacks a "good" clothing store, a pharmacy, a barber, and a hospital (the hospital closed in July, 1990). In the last thirty years, Circle lost an appliance store, two grocery stores and two clothing stores. Calico Cottage, a craft and hobby store that opened in Circle in 1984, is typical of the instability in recent rural retail development. It closed after only six years of operation.

The transportation network has had a detrimental impact on Circle's economic health. Circle is located approximately fifty miles from Interstate 94 at the intersection of Highways 200 and 13, both two-lane paved highways. Potential businesses have been diverted to locations that are closer to the interstate. In addition, improved roads have made it easier for Circle residents and nearby residents to drive to Billings and Glendive for services not found in Circle. Once in these larger centers, people frequently do their other shopping there as well.

Though only two places changed levels in the trade center hierarchy, there was considerable movement within classes in the three decades. Most of it occurred in the lowest two levels of the hierarchy. On average, minimum convenience centers' business base in southeastern Montana grew enough so that they had more business establishments than their counterparts in the seven-state Upper Midwest region by 1989. In 1960, minimum convenience centers in the seven-state region had an average of thirty-three establishments, compared to twenty-eight in the case study area. By 1989, these numbers had increased to thirty-five for the whole region and thirty-eight for the case study area.

Except for Colstrip, and to a lesser extent Ashland, hamlets in southeastern Montana are weak business centers compared to the seven-state region. Colstrip grew more than any other hamlet and, in percentage terms, more than any place in the case study area. In the early 1970s, four electrical generating units were built in Colstrip. Additional phases of construction began in 1979 and lasted for three years. This infusion of capital, people and employment opportunities resulted in high growth in complementary industries. Support services and establishments proliferated in order to meet the demand. Colstrip was the only trade center in the study area to have an above average number of retail establishments, an exception to the pattern of smaller centers losing many of their traditional retail functions.

Shifts in Mix of Industries and Average Number of Establishments

As noted in Chapter 1, the regional study documented increases in the number of establishments in all industry classes between 1960 and 1989, with the exception of retail, which grew marginally in the higher level centers but decreased in the lower levels. Service establishments proliferated and the wholesaling and construction industries expanded. At the same time, a larger proportion of all businesses became concentrated in the higher order cities.

The regional study also found that smaller places became more similar to larger places in their business mix, with a single major exception—a much

larger explosion of service-related establishments in the higher order trade centers.

Similar to the region, the number of establishments in southeastern Montana increased at all levels with the exception of retail, which grew slightly at some levels, but declined in the case study area as a whole. Table 2.8 shows that retail was the only category that declined in its proportion of the businesses in every trade center level in the past three decades. Although hamlets retained the same number of retail establishments, they experienced the sharpest decrease in retail as a proportion of their total business. Even the two largest centers, Glendive and Miles City (complete shopping centers—level 3), experienced a decline in significance of retailing relative to the other industry categories. Although retailing's rate of growth in the complete shopping centers fell behind that of other industries, the average number of retail establishments increased slightly (Table 2.9). Most of this growth was in the form of K-Marts and other chain stores on the fringe of Miles City, located on the edge of town off the Interstate 94, and on Highway 200 in Glendive. "Main streets" continued to lose retail businesses.

Table 2.8 Mix of Industry Categories Within Each Trade Center Class, 1960 and 1989 (in percents)

	Count		Agr. Services		Construction		Manufact.		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
3 Complete shopping	2	2	0	2	13	17	4	5	6	9	10	10	53	34	1	1	12	23	100	100
4 Partial shopping	2	2	0	2	11	12	3	3	4	10	8	8	63	39	2	2	10	23	100	100
5 Full convenience	1	1	0	4	8	9	3	5	4	16	9	16	59	29	3	2	15	18	100	100
6 Minimum convenience	5	5	0	3	9	16	4	7	5	7	6	12	66	35	4	3	7	17	100	100
7 Hamlet	21	21	0	1	2	18	2	9	3	6	10	8	78	42	1	2	4	12	100	100

Table 2.9 Average Number of Business Establishments in Each Industry Category by Trade Center Class, 1960 and 1989

	Count		Agr. Services		Construction		Manufact.		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
3 Complete shopping	2	2	1	6	29	58	10	18	13	30	21	33	112	118	2	4	25	79	212	344
4 Partial shopping	2	2	0	3	7	16	2	4	3	13	5	11	37	49	1	2	6	29	59	126
5 Full convenience	1	1	0	2	6	5	2	3	3	9	7	9	44	16	2	1	11	10	75	55
6 Minimum convenience	5	5	0	1	3	6	1	3	1	3	2	5	18	13	1	1	2	6	28	38
7 Hamlet	21	21	0	0	0	1	0	1	0	0	0	1	3	3	0	0	0	1	4	8

Again, as in the region as a whole, services proliferated in southeastern Montana, with the highest growth in the larger trade centers. Complete shopping centers (level 3) increased their proportion of service establishments from 12 percent to 23 percent, and partial shopping centers (level 4) increased from 10 percent to 23 percent. Even in the hamlets (level 7) services grew from an average of .2 to 1 establishment per place.

The construction industry also grew during the study period, with substantial growth in the lowest two levels. Since construction businesses usually need not locate where the construction is occurring, those in the business can operate out of small towns if they choose. In addition, industry-wide structural changes have resulted in smaller, more specialized operations and an increase in subcontracting. In minimum convenience centers, construction establishments went from 9 percent of the total in 1960 to 16 percent by 1989. The change in hamlets was even more striking, going from a mere 2 percent in 1960 to 18 percent by 1989. The average number of construction establishments more than doubled in the larger centers and nearly tripled in minimum convenience centers.

There was significant growth at every level of the trade center in the communications and transportation industry, and these establishments were some of the major employers in the area. For example, three of these firms in Glendive employed over 50 people and three of the firms in Colstrip employed over 250 people, illustrating again the major growth that has occurred in and around the Colstrip area in the past thirty years.

Manufacturing also showed big increases in the lower levels of the hierarchy, measured in terms of both its average number of establishments and its proportion of business relative to other industry categories. Manufacturing increased from 2 percent of the total number of establishments in hamlets in 1960 to 9 percent by 1989. In minimum convenience centers, the average number of manufactures was 1 in 1960 and 2.6 by 1989. Nearly all the manufacturing firms are small in scale, employing under 50 people.

Overall, the case study area results counter the trend characteristic of the Upper Midwest that mixes in smaller places more closely resemble mixes in larger centers in 1989 than they did in 1960 (Figure 2.6). In southeastern Montana the pattern is the opposite—smaller places looked more like larger centers in 1960 than they do in 1989. The economic "mold" for larger places may not be successful for smaller centers in this part of the Upper Midwest as in other parts.

Trade center classes have far fewer establishments per 1,000 population in all industry categories in the case study area than in the state (Table 2.10). Fewer establishments serve relatively larger populations in southeastern Montana, and the sparse settlement pattern forces people to become accustomed to driving longer distances for their needs. Clearly, the density of business establishments is at a bare minimum; a density much lower would spell the end for some of the smaller towns.

The average number of total establishments in complete shopping centers and hamlets grew at a faster rate in the case study area than in the state of Montana (see Table 2.11). Minimum convenience centers grew at approximately the same rate as the state.* The oil boom years and the resulting economic growth brought positive changes to both large and small centers alike in this area.

The average number of establishments in the case study area was lower than the state average in each trade center class in 1960. By 1989, these averages had grown significantly, but not enough to exceed the state's averages, except in the complete shopping centers. The two complete shopping centers, Miles City and Glendive, appear to be taking on the functions of primary and secondary regional centers in southeastern Montana. Consolidation and specialization have favored these two cities at the expense of some of the smaller places in the study area.

As in the Upper Midwest, retail firms consolidated into larger, high-turnover operations in the case study area. As a result, there has been little change or decline in the number of retail establishments, yet a substantial increase in the number of employees. For example, Custer County remained stable in its number of retail firms, but the number of jobs nearly doubled in approximately the same time period.** (See Table 2.12.) Changes in the number of jobs per establishment by industry category between 1960 and 1989 can be analyzed for only two counties, Custer (Miles City) and Dawson (Glendive). Data are incomplete for other parts of the case study area.

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* Due to the movement of two places between levels 4 and 5, comparisons of these levels with the state are omitted.

** The years are not directly comparable. Dun and Bradstreet data on number of establishments are for 1960 and 1989; *County Business Pattern* data on number of jobs are for 1962 and 1987.

Figure 2.6 Mix of Industries Within Each Trade Center Class, 1960 and 1989

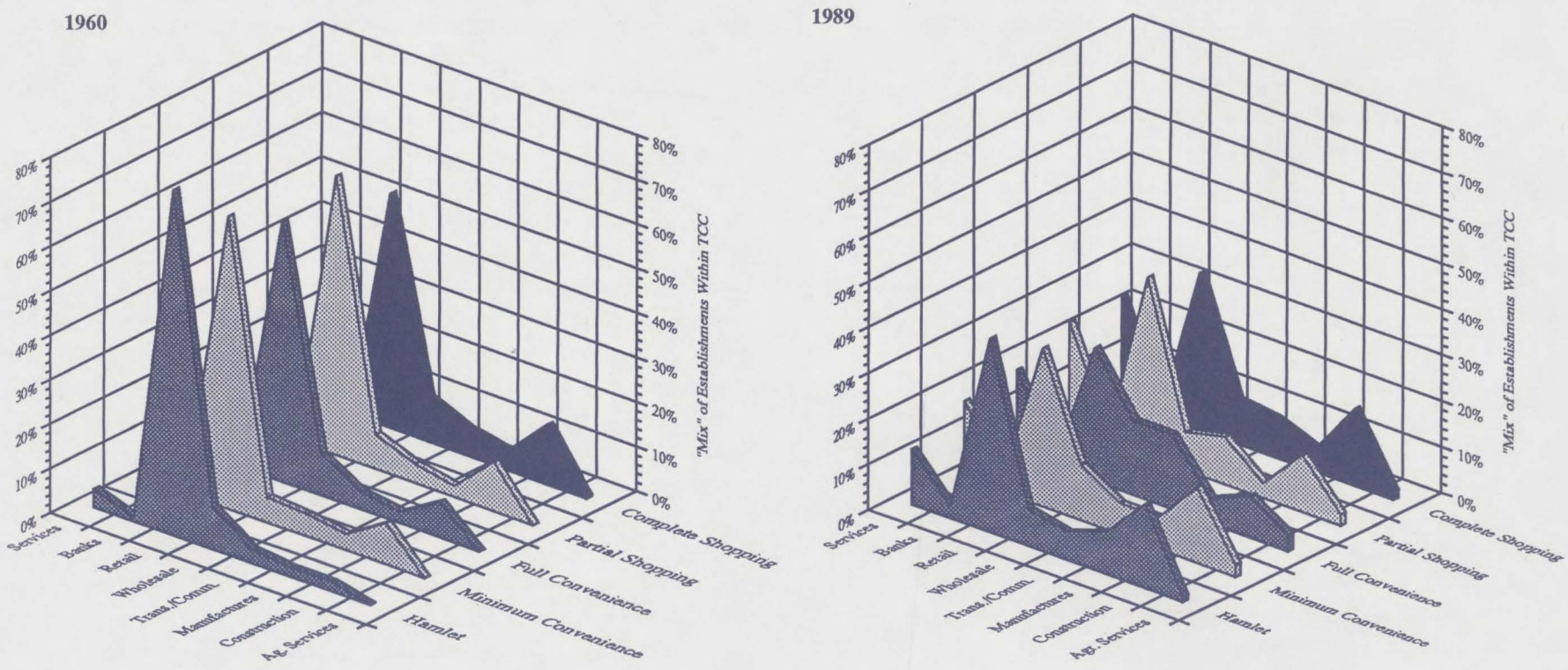


Table 2.10 Average Number of Establishments per 1,000 Population by Trade Center Class, 1989

		Case Study Area	Montana
3	Complete shopping	15.2	36.7
4	Partial shopping	5.6	36.5
5	Full convenience	1.2	40.0
6	Minimum convenience	4.2	27.6
7	Hamlet	3.6	14.6

Table 2.11 Change in Total Number of Establishments by Trade Center Class, 1960-1989 (in percents)

		Case Study Area	Montana
3	Complete shopping	62	10
6	Minimum convenience	34	36
7	Hamlet	73	0

Table 2.12 Number of Jobs per Establishment by Industry Category for Selected Counties, 1962 and 1987

	Const./Trans.		Manufactures		Wholesale		Retail	
	1962	1987	1960	1987	1962	1987	1962	1987
Custer	9.5	4.5	6.2	6.1	8.0	10.5	4.0	7.2
Dawson	13.9	7.4	13.5	4.4	11.4	5.5	4.3	6.9

Construction and transportation and manufacturing firms experienced an opposite pattern, which is typical of the increase in subcontracting work. In Dawson County, the number of establishments increased dramatically, by nearly 100 percent, but growth in employment was modest. The same was true in Custer County. The proliferation of construction establishments has helped the local economy; however, these firms tend to be small, and thus create fewer employment opportunities than previously. In manufacturing, both counties increased in their number of establishments. Custer County's increase in jobs was comparable to its growth in establishments. Surprisingly, however, Dawson experienced a loss in manufacturing jobs, resulting in an average decrease of nine jobs per establishment.

The pattern for wholesaling is less pronounced. Dawson County had significantly higher growth in its number of wholesaling establishments than did Custer County, but Custer County added substantially more employees overall in this sector. Primarily as a result of Miles City and its emergence as the regional "capital," Custer County had larger wholesalers in 1989 than in 1960. Dawson County gained many wholesaling firms in the past thirty years but they were, on average, relatively small employers.

Shifts in Retail and Service Sectors

Examining the growth and decline of the retail and service industries by individual Standard Industrial Classification (SIC) codes shows that the case study area mirrors the seven-state region in its retailing trends. There was an overall gain of eating and drinking and miscellaneous retail establishments and decline of general merchandise, building materials, and food stores and automotive and service stations. The service sector experienced more uniform growth, following the same pattern as the Upper Midwest, with larger centers capturing more of the growth, though smaller places have also benefited (Table 2.13). Some of the specific findings are noted here:

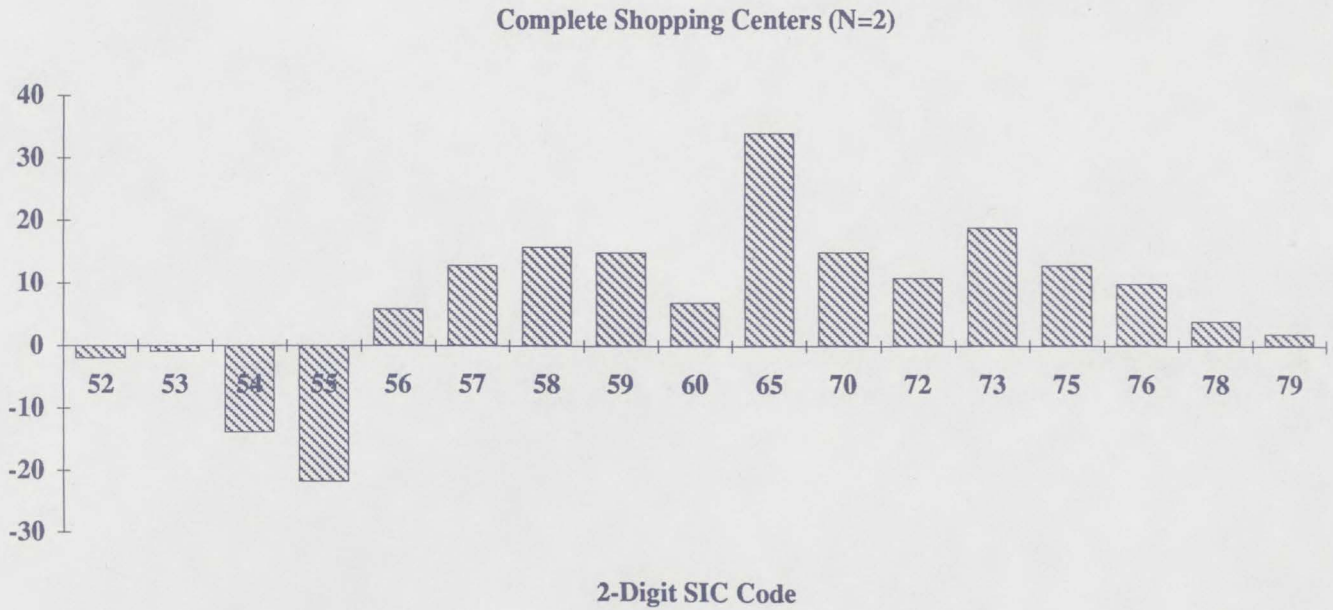
- In general, all levels of the hierarchy experienced declines in the number of building materials and garden supplies stores, general merchandise and department stores, food stores, and automotive and service stations (Figure 2.7).

Table 2.13 Standard Industrial Classification Codes Assigned to Retail and Service Establishments

2-Digit SIC Code	Description
52	Building Materials and Garden Supplies
53	General Merchandise/Department Stores
54	Food Stores
55	Automotive and Service Stations
56	Apparel and Accessory Stores
57	Furniture and Home Furnishings
58	Eating and Drinking Establishments
59	Miscellaneous Retail
60	Financial Institutions
65	Real Estate Services
70	Hotels and Other Lodging
72	Personal Services
73	Business Services
75	Auto Repair and Parking
76	Other Repair Services
78	Motion Pictures
79	Amusement and Recreation Services
80	Health Services

- In general, all levels experienced growth in apparel and accessory stores, furniture and home furnishings, eating and drinking establishments, and miscellaneous retail. The growth in these retail sectors, however, has not been strong enough to offset the decreases in the other more traditional retail sectors.
- Surprisingly, hamlets experienced net growth in the retail sector. The proliferation of eating and drinking establishments in these small centers (+11) was enough to counterbalance the losses that occurred in general merchandising and automotive and service stations. This pattern contradicts that of the seven-state region, where smaller centers were most negatively affected by the movement toward larger, high turnover retail operations.
- No level of the hierarchy gained general merchandise stores. The hypothesis was that these types of stores are locating in larger centers, though this is not the case in this area. Perhaps they are going to even larger regional centers, such as Billings, Dickinson, or Williston.
- Baker's total increase of ten retail establishments counters the trend toward retail consolidation. Most of its growth was in eating and drinking establishments and miscellaneous retail. This growth, an anomaly in a center of this size, provides further evidence of Baker's increased trade function during the study period.
- All of the service SIC codes examined gained establishments in all levels of the trade center hierarchy. Overall, services grew by a total of 213 establishments, with real estate services accounting for more than a fifth of the total growth. Business, financial, and real estate services grew the most in the case study area.

Figure 2.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes



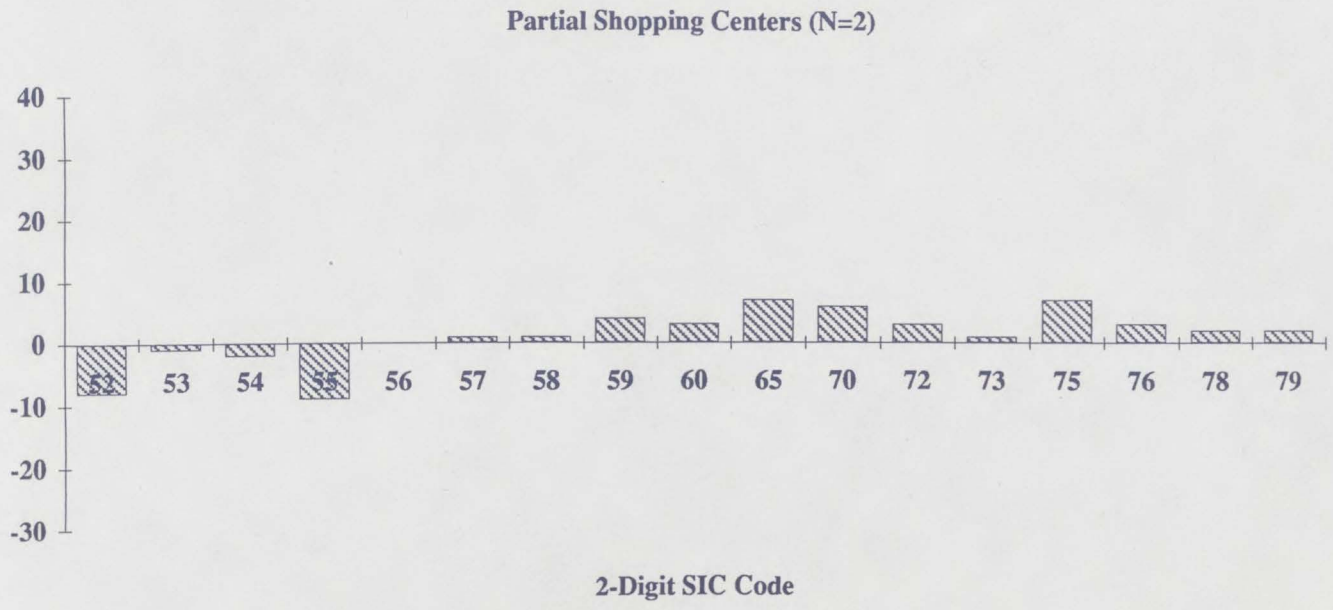
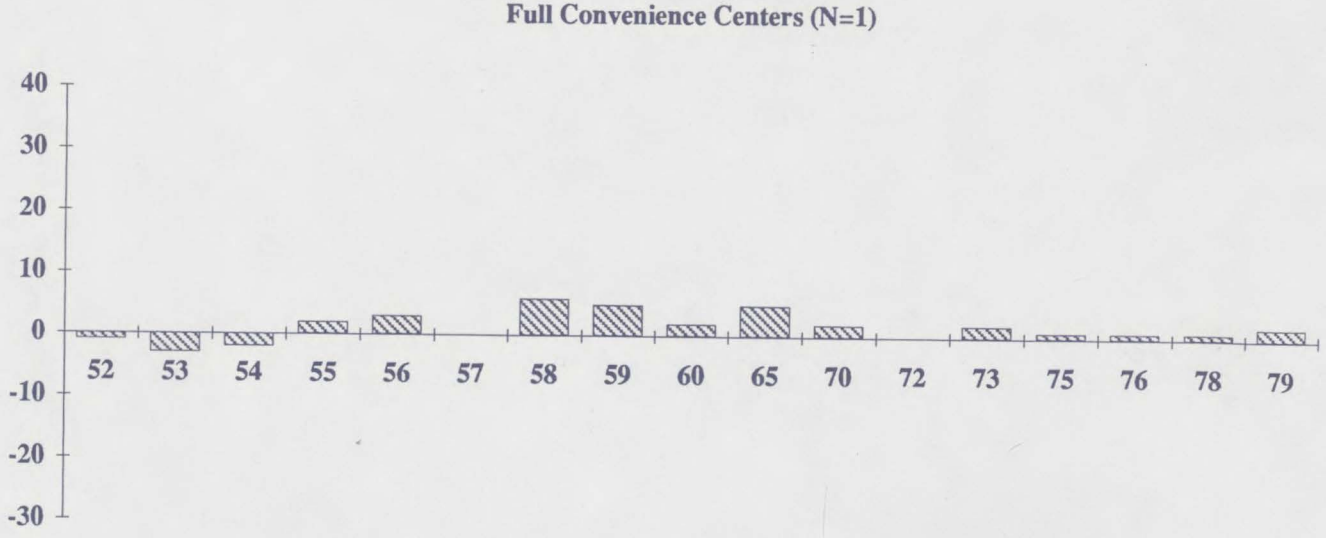


Figure 2.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes, continued



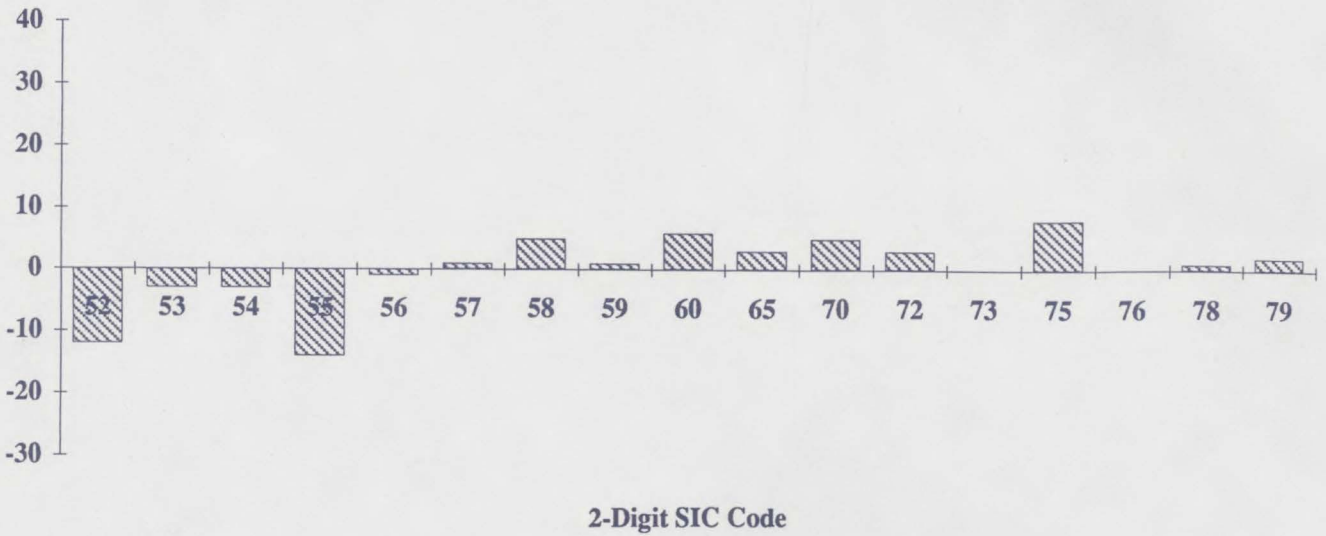
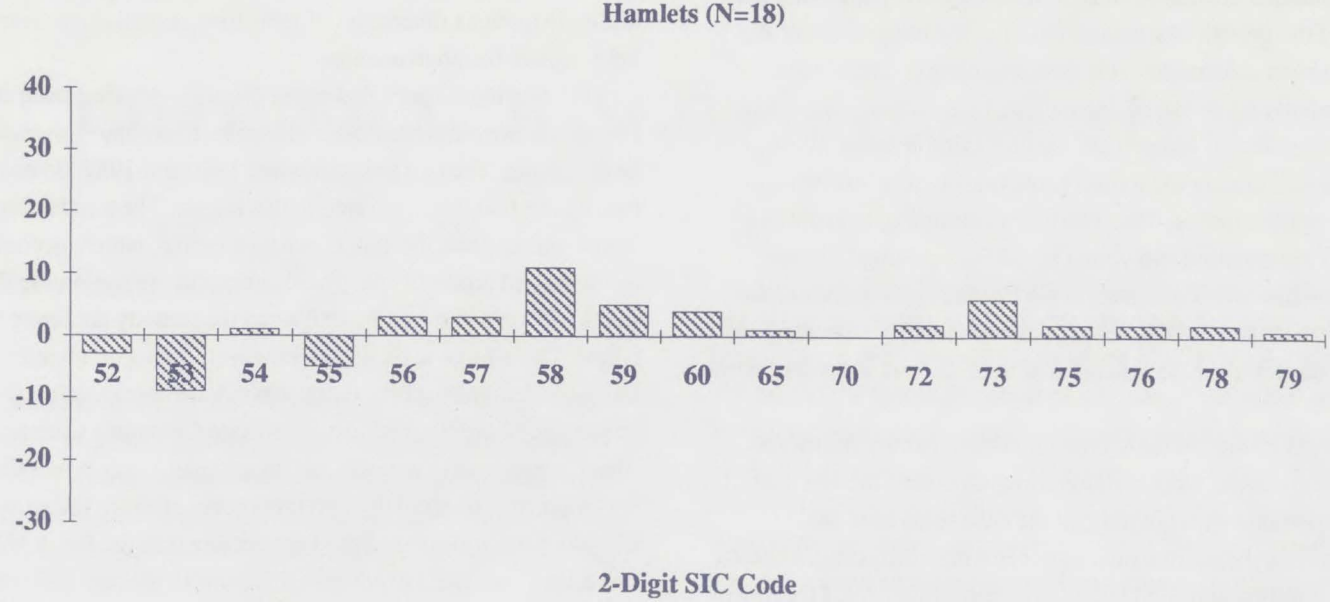


Figure 2.7 Change in Absolute Number of Retail and Service Establishments by Trade Center Class, 1960-1989, Using 1960 Group Codes, continued



Findings

The last decade's population decline in an area of already low population density has offset most of the growth that occurred during the boom years of the 1970s. There has also been a decrease in the farm population. Those trade centers heavily dependent on farm trade and income have subsequently been hurt. Furthermore, the remaining farmers and ranchers find it easier to travel to more distant trade centers, forcing local rural economies to rely less on farm trade and to find new market niches. The elderly are continuing to grow as a proportion of the area's population and young people are moving to larger centers, both inside and outside of the state, to find work. These demographic changes, combined with an increased level of personal mobility and changing patterns of shopping, have altered the functions of trade centers in southeastern Montana.

The patterns of retail change in these communities generally mirror the trends that occurred in the larger Upper Midwest region during the last thirty years. The relative importance of retail trade in the case study area has decreased. Certain retailing operations such as general merchandising, building materials and garden supplies, and food stores have consolidated and located in larger centers. Eating and drinking establishments and miscellaneous retail stores have partially balanced the decline of traditional retailing. Eating and drinking establishments appear to be the mainstay of some of the smaller communities.

The growth in services in every trade center level also mirrors the exceptional growth of the service sector in both the national economy and in that of the Upper Midwest. Growth has been largest in real estate. Services have grown most in the largest centers, with Miles City and Glendive capturing over half of the service growth.

There was also substantial growth in construction in the smaller centers. The forces of decentralization and the shift toward subcontracting work have made it feasible and economical to locate in smaller centers. Manufacturing and wholesaling have increased their importance in the economies of the smaller centers as well. These trends allow small town residents to remain in their communities.

Over the past thirty years, the case study has not maintained its two largest centers, Miles City and Glendive, at the same strength. Miles City has prospered, becoming the primary regional center, while Glendive has stagnated. Location, Glendive's past reliance on the railroad network, and Miles City's ability to attract a diverse set of industries as well as government facilities, all help explain the phenomenon.

Despite these internal changes the study area has been stable overall—only two places moved within the trade center hierarchy. However, this stability may be deceiving. The two points in time, 1960 and 1989, do not capture the boom/bust cycles that have occurred in this region. The trends observed during the 1980s indicate that the area is in a bust period, which, according to local residents, started around 1982. These periods are part of international cycles, such as the oil crisis in the early 1970s and the steadily declining world price of wheat. These large scale forces, however, do not automatically mean doom for this area. A number of local economic development initiatives are currently underway. Examples include the Buffalo Commons Core Economic Group in Baker, which works at the local and regional levels promoting economic development; the specialty fish production effort in Glendive; and the efforts of Ekalaka to secure a paved road connecting it to the Black Hills in South Dakota. The area has adapted to adverse situations in the past and present efforts seem hopeful. Whether or not these initiatives can counteract international and national trends will be seen in the next twenty years.

CHAPTER 3. WISCONSIN CASE STUDY

Profile of the Case Study Area

Setting

The case study area selected in Wisconsin, located in the northwestern section of the state, includes five counties: Ashland, Barron, Bayfield, Sawyer and Washburn (Figure 3.1). The area extends roughly 125 miles south along a corridor running from Bayfield County on Lake Superior in the northeast, through the city of Hayward at its center, to the southwest boundary of Barron County (Figure 3.2).

The major roads reflect railroads that crisscrossed this area a century ago connecting Duluth-Superior with south-central Wisconsin and the Milwaukee-Chicago area. U.S. Highway 53 runs south through the area from Superior to Lacrosse, and U.S. Highway 63 runs northeast to Ashland from southeastern Minnesota. These two main regional roadways cross in Washburn County and intersect in Spooner. Rail connections between the Minneapolis-St. Paul area and Lake Superior also pass through the case study area.

The case study area has three complete shopping centers, Ashland, Hayward, and Rice Lake, three partial shopping centers, Barron, Spooner, and Cumberland, and two full convenience centers, Chetek and Winter. There are seventeen minimum convenience centers and twenty-three hamlets. The complete shopping centers are superseded by larger centers nearby, Duluth-Superior, Eau Claire, and the Minneapolis-St. Paul metropolitan center (Figure 3.2).

The Wisconsin case study area includes two distinct natural resource areas: the heavily forested northern two-thirds is used principally for the production of lumber and recreational activity; the southern third is oriented towards agriculture and recreation around the lake areas.

Glacial action in recent geological time removed topsoil in the northern portion of the study area, especially around Lake Superior. Soils are poor, the growing season is short, and agriculture of all types is marginal. The forests are second and third growth; stands of white pine and other saw timber were felled around the turn of the century. The gently rolling terrain is occasionally broken by glacial deposits, producing both lakes and slopes suitable for skiing. Hundreds of lakes dot the landscape, and land around the lakes that is close to roads, or was near passenger rail service in the 1920s, has been developed for recreation and second summer homes. Small family-owned resorts cater to fishermen in the summer and, more recently, to skiers in the winter. Many of the original resorts have been either closed or upgraded to serve a more affluent clientele. However, intense recreational development is limited because most of the northern area is too remote from the major population centers of the Twin Cities and Milwaukee-Chicago. Several state and national forest preserves limit the development of recreation and settlement areas and preserve the wilderness environment.

The northern part of the case study area also has three Indian reservations. The Red Cliff Indian Reservation, the smallest of the three, is located on the northernmost coastal region of Bayfield County and is known for its camping and harbor facilities. (Figure 3.3 shows the county boundaries.) The Bad River Indian Reservation is a larger reservation in the northeastern sector of Ashland County. The Lac Courte Oreille Indian Reservation, located in Sawyer County south of Hayward, includes most of the Lac Courte Oreille waterbody and part of the Chippewa (River) Flowage. It profited from the tourist boom of Hayward, and reservation residents established the Lac Courte Oreille Development Corporation, which runs a saw mill, construction company, and other commercial enterprises. The reservation also has a community college on land close to Hayward.

Figure 3.1 Regional Map for Wisconsin Case Study Area

* Note: Geographic boundaries are county divisions.

Figure 3.2 Wisconsin Case Study Area, 1989

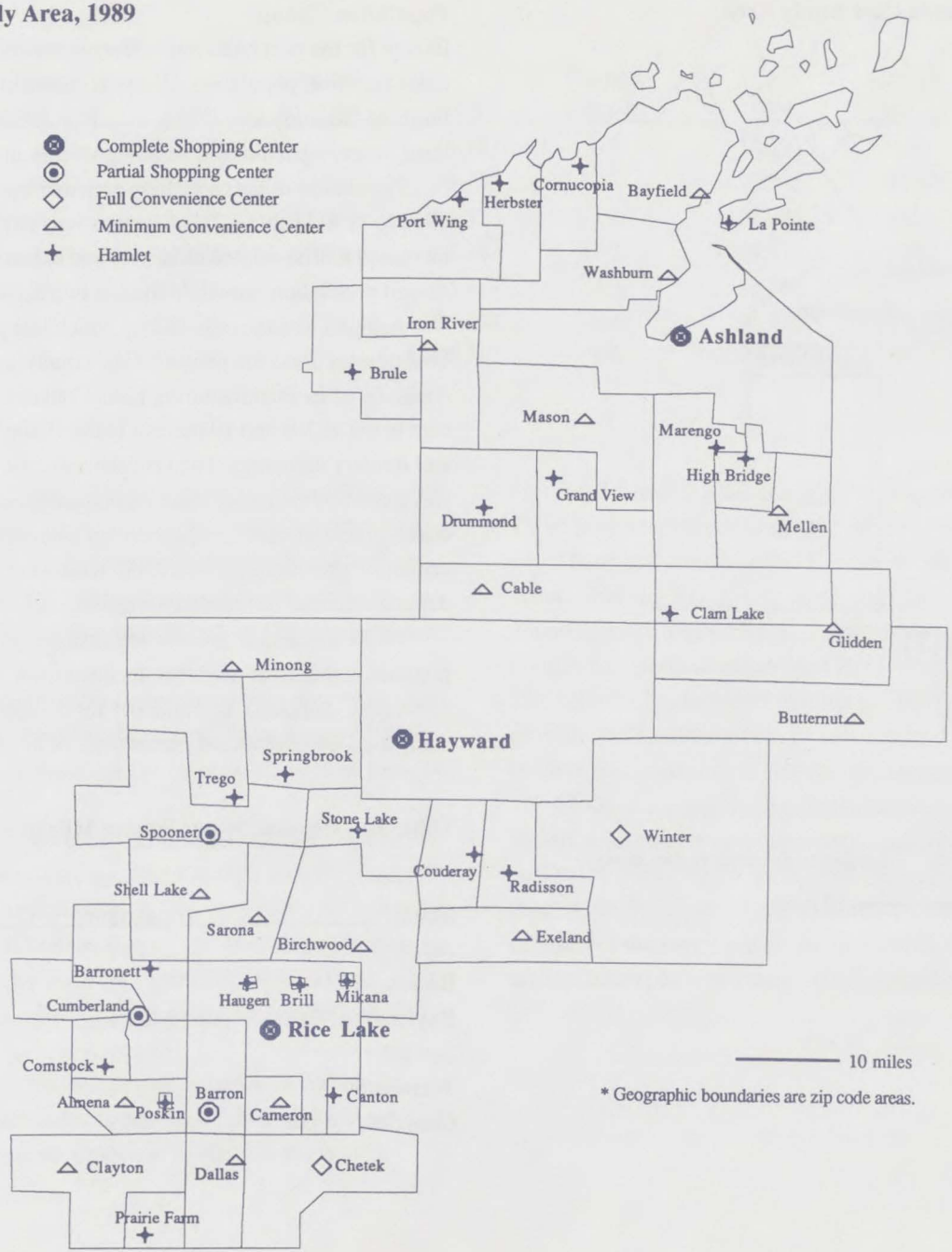
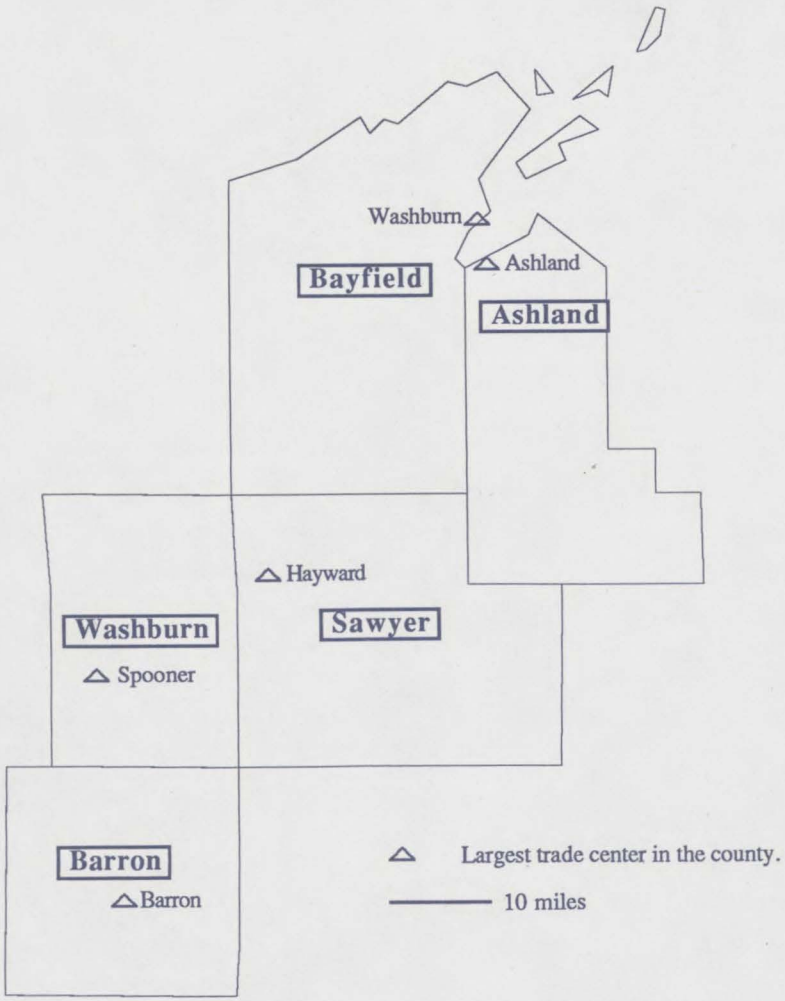


Figure 3.3 County Map of Wisconsin Case Study Area



Population Change

Except for the port cities and a few recreational centers on the south shore of Lake Superior, population density is sparse in the heavily forested northern two-thirds of the study area (Table 3.1). Population density is higher in the southern third, where agriculture is more significant in the local economies.

Population in the case study area increased marginally, 23 percent, from 1960 to 1990 (Table 3.2). There was very slight population loss in the 1960s, but increased tourist-related industries and expansion of wood processing industries caused population growth in the last two decades.

Ashland was the only county which lost population over the study period. This trend reflects the demise of the county's iron exports and the concomitant depletion of its manufacturing base. Conversely, Sawyer County grew by 33 percent in the 1970s and 10 percent in the 1980s because it strengthened its tourist and forestry industries. The Louisiana-Pacific lumber and waferboard company was joined by two other similar companies and more recently by Noresin. The development of such complementary enterprises solidified the population and economic growth of Hayward, but it has also made the area vulnerable to forest disasters such as fire hazard, fungal infections, and unsound logging practices.

While population grew in the case study area as a whole, the percent of the population that lives on farms declined from 27 percent in 1960 to 9 percent by 1980. (See Appendix B, Table B.1 for detailed statistics.) Every county in the study area lost significant percentages of its farm population over this period.

Table 3.1 Population per Square Mile by County, 1990

County	Population	Square Miles	Pop./Sq. Mile
Ashland	16,292	1,048	15.5
Barron	40,715	865	47.1
Bayfield	14,001	1,462	9.6
Sawyer	14,171	1,255	11.3
Washburn	13,776	815	16.9
Case Study Area	*98,955*	*5,445*	*18.2*

Table 3.2 Population by County, 1960-1990

County	1960	Change 1960-70	1970	Change 1970-80	1980	Change 1980-90	1990	Change 1960-90
Ashland	17,375	-4%	16,743	0%	16,783	-3%	16,292	-6%
Barron	34,270	-1%	33,955	14%	38,730	5%	40,715	19%
Bayfield	11,910	-2%	11,683	18%	13,822	1%	14,001	18%
Sawyer	9,475	2%	9,670	33%	12,843	10%	14,171	50%
Washburn	10,301	3%	10,601	24%	13,174	4%	13,766	34%
Case Study Area	*83,331*	*-1%*	*82,652*	*15%*	*95,352*	*4%*	*98,945*	*19%*
Wisconsin	**3,951,777**	**12%**	**4,417,731**	**7%**	**4,705,767**	**3%**	**4,869,640**	**23%**

For example, the farm population of Bayfield County dropped from 30 percent in 1960 to only 4 percent in 1980—the same as the traditionally non-agricultural Ashland County. By 1980, every county but Barron had only about 4 to 6 percent of their population living on farms. Although decreasing by a significant number, the agriculturally strong Barron County still retains a farm population of 16 percent (Figure 3.4).

The population is also significantly older today than it was thirty years ago. The proportion of the population under 18 declined from 37 percent in 1960 to 27 percent in 1990 (Table 3.3), while the 65 and older population grew from 14 percent to 18 percent (Table 3.4).

The most spectacular growth in this group occurred in Sawyer County (94 percent), where many summer cabins were upgraded so their owners could retire in the area. There was also a construction boom in Sawyer County's major city, Hayward, as retirement housing was built in the city and township. The population 65 and older in Washburn County grew by 80 percent. Ashland and Bayfield counties showed the smallest increases in the aging population, with only 24 and 43 percent, respectively.

It is likely that these two trends, the loss of people under 18 and the increase in those over 65, will continue in the foreseeable future and will have significant implications for economic development in the case study area.

Figure 3.5 illustrates the changing demographic structure of the case study area. There are fewer people under the age of 15 and more people over the age of 60.

Those in the under-age-15 group in 1960 are now in the 30-to-45 age cohort, forming a relatively large, economically active population with regard to young dependents in the area. Limited educational and employment opportunities have left the group aged 20 to 30 smaller than could be expected in 1990. Similarly, the larger number of elderly people is significant for the provision of health and related services, and in the infusion of transfer payments (such as Social Security) into the local economy.

Much of the graying population appears to be going to the northern subregion, with an economy based increasingly on the tourist and recreation industries. However, in the southern subregion, where retiring farmers are settling in nearby towns, closer to health and related services, according to city officials of the major towns. An increase in the construction of retirement housing has taken place in towns such as Barron and Cumberland—located in the agricultural counties.

Figure 3.4 Farm and Nonfarm Population by County, 1950-1980

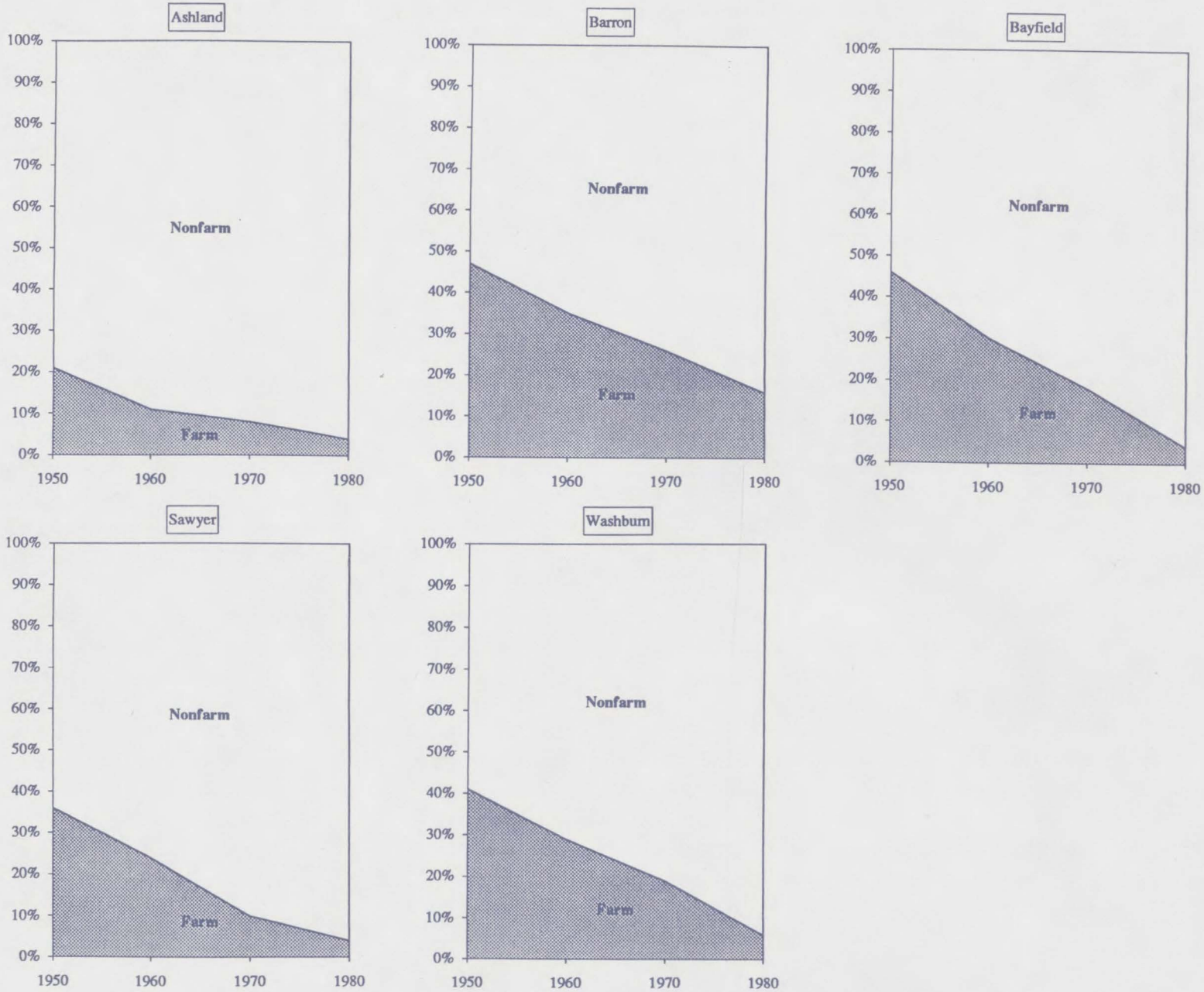


Figure 3.5 Age Structure of Case Study Area, 1960 and 1990

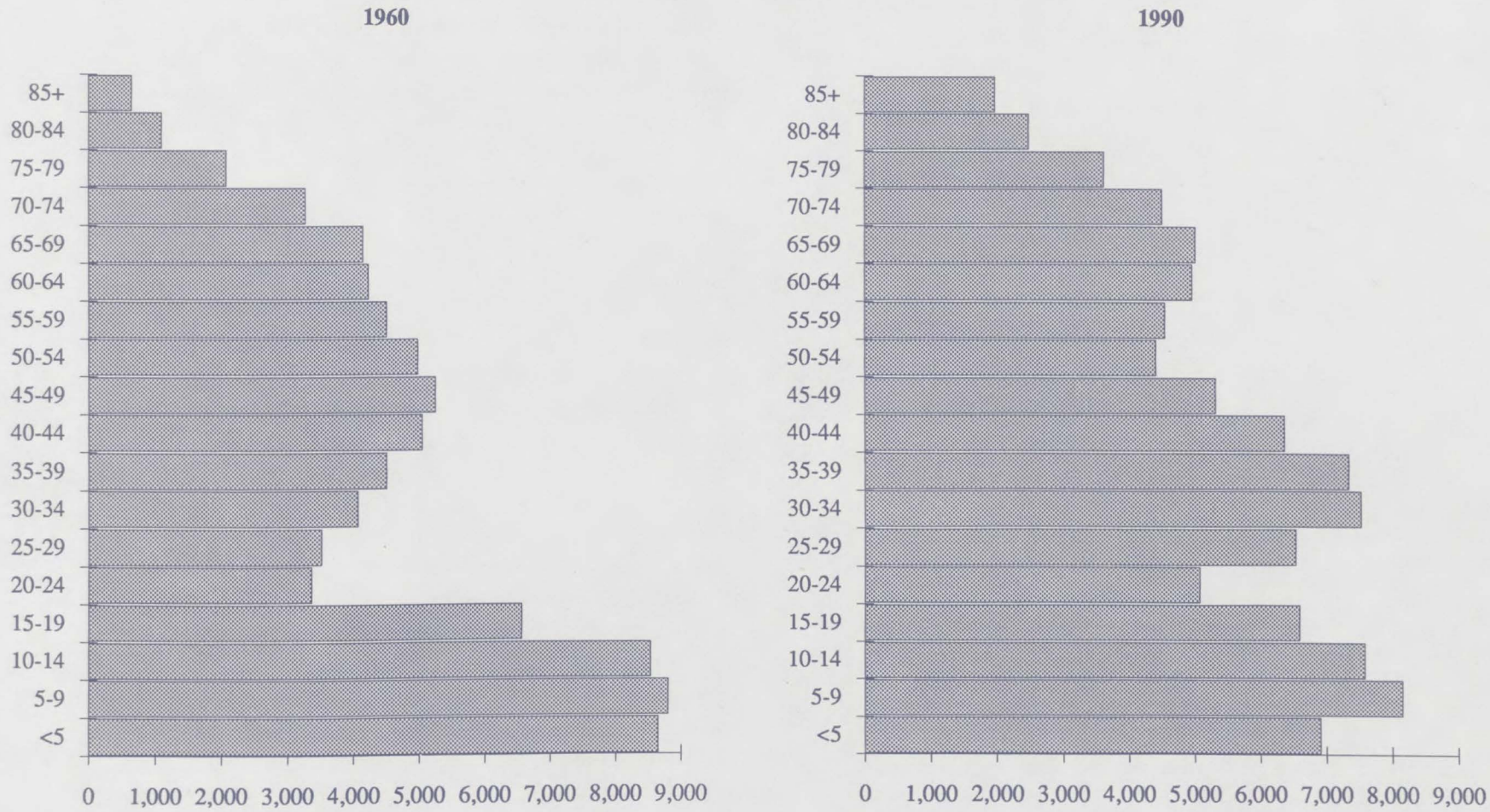


Table 3.3 Population Under the Age of 18 (in percents)

County	1960	1970	1980	1990	Change 1960-90
Ashland	36	34	28	27	-29
Barron	38	35	29	28	-14
Bayfield	36	34	29	27	-13
Sawyer	35	34	29	26	-11
Washburn	36	34	29	26	-3
Case Study Area	*37*	*35*	*29*	*27*	*-13*
Wisconsin	**37**	**36**	**29**	**26**	**-11**

Table 3.4 Population Age 65 and Older (in percents)

County	1960	1970	1980	1990	Change 1960-90
Ashland	14	16	17	18	24
Barron	13	15	16	17	60
Bayfield	15	16	17	18	43
Sawyer	15	17	17	19	94
Washburn	14	16	17	19	80
Case Study Area	*14*	*16*	*17*	*18*	*56*
Wisconsin	**10**	**11**	**12**	**13**	**62**

Table 3.5 Population Change by Trade Center Class,* 1960-1990 (in percents)

		Change			
		1960-70	1970-80	1980-90	1960-90
3	Complete shopping	-3	1	-1	-3
4	Partial shopping	0	5	8	13
5	Full convenience	-6	18	1	13
6	Minimum convenience	-3	9	4	11
7	Hamlet	11	-6	8	14

* Unincorporated places were not included.

The Trade Center Hierarchy

Population Change by Trade Center Class

Over the last thirty years, population increased in all hierarchy levels of the trade center hierarchy except complete shopping centers (Table 3.5). Note that population figures refer to the incorporated city's population and exclude the small portion of the population that lives in the rest of the zip code district. (See Appendix B, Table B.2 for detailed population changes in each center of the trade center hierarchy.) However, the patterns show spurts of growth and decline in most of the trade center classes. During the 1960s, hamlets were the only trade center class in which population grew (11 percent). Through the boom period of the 1970s, every level grew but hamlets, which lost about 6 percent of their population. Full convenience centers had the greatest population growth during the 1970s. During the 1980s, population grew modestly in all levels except complete shopping centers.

Population trends in trade center classes are impacted by the same variety of circumstances noted earlier in this chapter. The population of Ashland has fallen steadily over the last four decades as its iron/taconite export base and manufacturing sector has been eroded. Hayward's population has grown spectacularly as a result of increased tourism and a growing number of retirees.

Trade Centers that Changed Levels

All but two trade centers in the case study area retained their relative economic positions in the hierarchy between 1960 and 1989. These two places, Birchwood and Sarona, both located in Washburn County, moved up from being hamlets to minimum convenience centers. The economic growth of this county in the seventies bolstered the number of business establishments in these two towns. Birchwood is situated at the southern end of a series of lakes formed by the terminal moraine of the last retreating glacier. An increase in tourism prompted an increase in construction and service establishments in these two towns between 1960 and 1989 (see Appendix B, Table B.3 for detailed information on the numbers and types of establishments in 1960 and 1989).

Employment Change

The area slowly expanded its employment base over the last three decades, with a boom period in the 1970s when there was a re-emergence of forestry and its related industries and an increased development of service industries. Local tourism also increased during the 1970s, particularly around the lake district in Hayward. This was both because personal disposable incomes increased and because the 1973 energy crisis altered travel patterns.

During these high growth years, over 3,000 jobs came into the area, a 51 percent increase. This is significantly higher than the 30 percent increase rate for the state (Table 3.6). Even in the recession years of the 1980s, job growth at 15 percent was double that of the state at 7 percent. Employment trends varied both by county and by industry over the boom-bust years of the 1970s and 1980s. Bayfield was the only county that gained fewer jobs in the 1970s than in the 1960s, a trend which has continued into the 1980s. All of the counties had smaller job growth in the 1980s than in the 1960s. In Ashland and Bayfield this reflected once again the severity of the economic contraction of iron mining on the Mesabi Range and a general lack of manufacturing diversity in Ashland County. Ashland and Bayfield counties also lost manufacturing jobs during the early 1980s recession. Washburn County's agricultural and tourist-related industries had strong growth in the 1980s.

Figure 3.6 shows very large shifts in the composition of the employment mix in these counties between 1962 and 1987. Manufacturing and retail jobs have shrunk drastically, and the region is now heavily dependent on service jobs, approximately one out of four jobs are now in the service industries.

Shifts in the Mix of Businesses

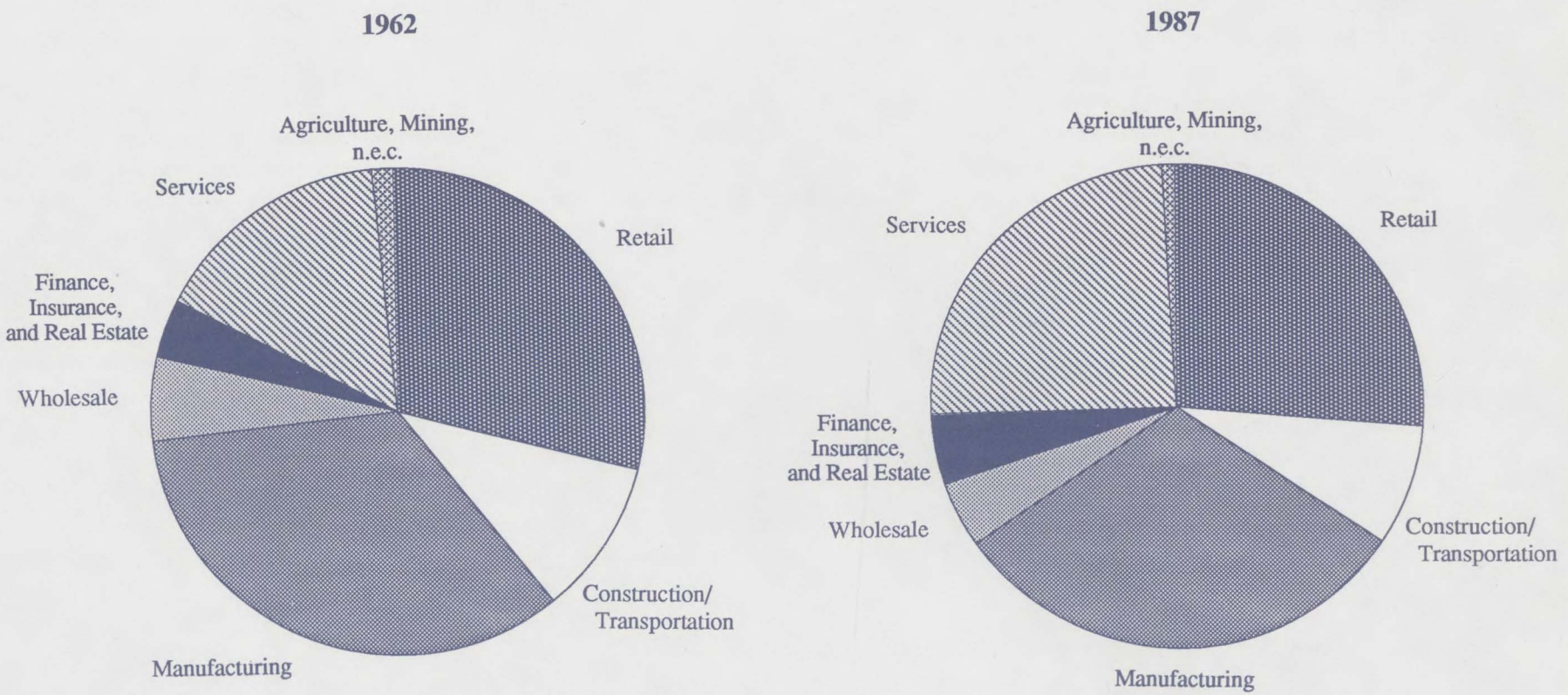
The principal findings of the regional study included the following: an overall increase in number of business establishments in most industry categories between 1960 and 1989, with the single exception of retail, where the number of establishments decreased at the lower levels of the hierarchy; an explosive growth in the services industry and expansion in wholesaling and construction industries; and an increase in similarity between smaller places and larger places in their business mix, with one important exception—a much larger growth in the number and, therefore, share of businesses in service establishments in the larger trade centers.

These regional study findings were largely confirmed in the Wisconsin case study area, a sub-regional area where population growth occurred. Total number of establishments increased by 785, with increases in all industry classes except retailing between 1960 and 1989. The losses in retailing were most severe in the smallest centers (Table 3.7). This was the only industry group to show a decrease in the number of establishments per 1,000 population over the study period (Table 3.8). Despite these losses, retailing remains a key activity at all levels of the hierarchy, averaging about fourteen establishments per 1,000 population in complete and partial shopping centers and between eight and ten

Table 3.6 Number of Jobs for All Industries by County, 1962-1987

County	1962	Change 1962-70	1970	Change 1970-80	1980	Change 1980-87	1987	Change 1962-87
Ashland	2,717	32%	3,576	38%	4,928	11%	5,489	102%
Barron	4,789	33%	6,376	59%	10,136	15%	11,700	144%
Bayfield	892	35%	1,202	18%	1,420	9%	1,551	74%
Sawyer	870	40%	1,221	58%	1,933	18%	2,282	162%
Washburn	1,169	24%	1,449	70%	2,462	18%	2,902	148%
Case Study Area	*10,437*	*32%*	*13,824*	*51%*	*20,879*	*15%*	*23,924*	*129%*
Wisconsin	**956,597**	**30%**	**1,239,211**	**30%**	**1,610,115**	**7%**	**1,726,874**	**81%**

Figure 3.6 Changing Composition of the Local Employment Base, 1962 and 1987



Note: n.e.c. = not elsewhere classified

Table 3.7 Mix of Industry Categories Within Each Trade Center Class, 1960 and 1989 (in percents)

	Count		Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.	
	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
3 Complete shopping	3	3	0	1	7	11	8	9	2	4	10	9	55	41	0	1	17	26	100	100
4 Partial shopping	3	3	0	1	8	12	6	7	2	4	8	9	61	44	1	2	13	20	100	100
5 Full convenience	2	2	0	1	5	14	9	11	4	3	3	5	60	37	1	1	17	28	100	100
6 Minimum convenience	15	17	0	1	4	13	10	11	3	5	5	6	65	38	3	2	10	24	100	100
7 Hamlet	25	23	0	0	3	11	7	13	3	3	4	5	70	41	3	3	11	24	100	100

Table 3.8 Number of Establishments per 1,000 Population by Industry Category, 1960 and 1989

	Count	Agr. Services	Construction	Manufactures	Trans./Comm.	Wholesale	Retail	Banks	Services	Total Estabs.
1960	48	0.05	1.55	2.12	0.67	1.85	15.69	0.38	3.55	25.91
1989	48	0.19	3.37	2.69	1.13	2.04	11.15	0.41	6.76	27.74

establishments in the smaller centers. A large part of this trend can be related to changes in merchandising and marketing in the retail industry as a whole. The recent opening of both Walmart and K-Mart in Rice Lake, a level 3 center, has affected the retailing in surrounding lower order centers as consumers travel further to shop at these stores, bypassing their own smaller communities. These large, high-turnover-per-square-foot stores are located in easily accessible malls outside the central business district. Stores on the main street of Rice Lake are being hurt by these two new discount stores.

Unlike in the region as a whole or in the state, this part of Wisconsin showed explosive growth in services at all levels of the hierarchy, with the smaller places showing remarkable increases in the number of service establishments (see Appendix B, Table B.3). This phenomenon is a direct result of the increased tourism noted earlier and an expansion of health, legal, and financial services for a more affluent and elderly population.

Restructuring of the resort industry has meant that year-round residents need certain services, such as access to adequate health care and places where consumer items can be purchased and repaired. The restructuring has also meant an increase in retirees who need services. The city of Barron, for example, has constructed retirement cottages in conjunction with its hospital so that a spouse may be close at hand if a partner is hospitalized. Retirement housing in the towns and cities of Barron and Washburn counties was also constructed for retiring farmers who had sold their land during the boom period of high-priced agricultural land in the early 1980s.

In addition, the efficiency of improved transportation and communication networks has enabled certain companies to decentralize and locate in small towns. For example, Exeland, which has only 180 people, has an investment firm and auto dealership which deals with clients in many other parts of the state.

The construction industry has also grown, increasing from 1.55 establishments per 1,000 population in 1960 to 3.37 in 1989. The proportion of construction establishments significantly increased at all levels of the hierarchy (see Table 3.8). Many of today's construction businesses act as service industries and are small and specialized. For this reason, they are able to locate in places which are not necessarily the largest and use the extensive transportation network to reach their clients.

Between 1960 and 1989 manufacturing increased in proportion to other industries at each level of the hierarchy. In this case study area manufacturing at the upper levels of the hierarchy (complete and partial shopping centers) forms a smaller proportion of all business establishments than in the state of Wisconsin as

a whole (see Table 3.7 and Appendix B, Table B.3). Improvements in roads have meant increased accessibility for some places and manufacturing plants have located or relocated in some smaller places. For example, Cumberland lost one of its largest manufacturers when Stella Cheese factory consolidated with another plant in Almena about fifteen miles away. There has also been a tendency for people to migrate to the area to take advantage of the scenic and recreational nature of the landscape once they become "empty nesters" and to set up small business enterprises. Most often these are retail or service businesses, but manufacturing concerns are also established in this manner.

Shifts in Retail and Service Sectors

A detailed analysis of the many different forms and types of businesses with the retail and service industries shows that losses in retail establishments at each level of the hierarchy were offset by gains in industries in these places. The 2-digit SIC codes used to carry out the analysis are explained in Table 3.9. The changes in merchandising and marketing in the retail field account for some of the losses and gains in the different types of retailing. Losses of food stores occurred at all levels due to the trend to consolidate smaller food shops into larger high-turnover, low-price stores. For instance, two large supermarkets, serving a wide catchment area, have been established in Hayward, and the establishment of a third is being considered. (See Figure 3.6). Because the analysis is based on the 1960 trade center classification, data for Birchwood and Sarona are included in level 7 in Figure 3.7, rather than in their 1989 classification, which is level 6.

The advent and development of the fast-food industry and restaurant locations in larger places has been accompanied by the decline of eating and drinking establishments (SIC 58) at the highest level of the hierarchy. But the importance of the local tavern/cafe in hamlets remains, and the number has actually increased by eleven at this level of the hierarchy.

Another form of retailing affected by larger national trends is the category of "general merchandise and department store" (SIC 53). Hamlets have lost thirty-two of these types of stores, and minimum convince centers have lost thirteen. The development of two large discount stores (K-Mart and Walmart) in Rice Lake, and improved accessibility and transportation have allowed consumers to abandon their traditional local town shopping for more selection in the bigger stores in the larger cities. The decline in the number of retail establishments is offset by a large growth in businesses categorized as miscellaneous retail establishments. These include boutiques, antique stores, hobby, toy and game shops, and similar operations.

Auto and service stations (SIC 55) declined at all levels of the hierarchy except partial shopping centers. The growth at that level is attributable to one city—Spooner—which is located at the intersection of two major highways.

The positive growth of the service industry is best represented by the increases in the number of hotels and related establishments (SIC 70), financial institutions (SIC 60), and real estate services (SIC 65) at every level of the hierarchy. Many of the places recorded by Dun and Bradstreet may actually be in the general zip code area rather than the central place represented by these towns and cities. The only loss of service establishments occurred in amusement and recreation services (SIC 79) at the level of full convenience centers.

Table 3.9 Standard Industrial Classification Codes Assigned to Retail and Service Establishments

2-Digit SIC Code	Description
52	Building Materials and Garden Supplies
53	General Merchandise/Department Stores
54	Food Stores
55	Automotive and Service Stations
56	Apparel and Accessory Stores
57	Furniture and Home Furnishings
58	Eating and Drinking Establishments
59	Miscellaneous Retail
60	Financial Institutions
62	Security and Commodity Brokers
65	Real Estate Services
70	Hotels and Other Lodging
72	Personal Services
73	Business Services
75	Auto Repair and Parking
76	Other Repair Services
78	Motion Pictures
79	Amusement and Recreation Services

Figure 3.7 Change in Absolute Number of Retail and Service Establishments, 1960-1989, Using 1960 Group Codes

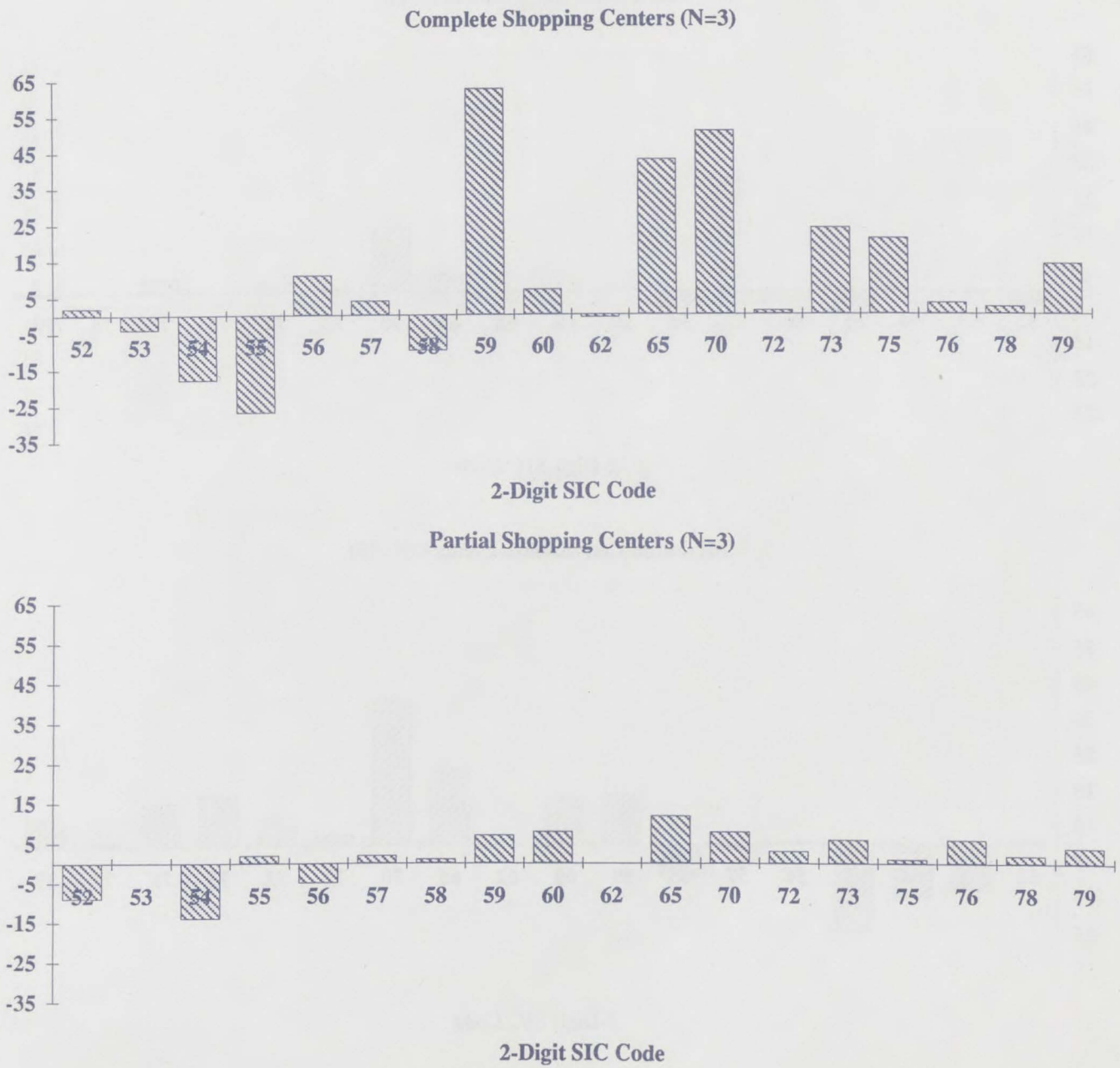
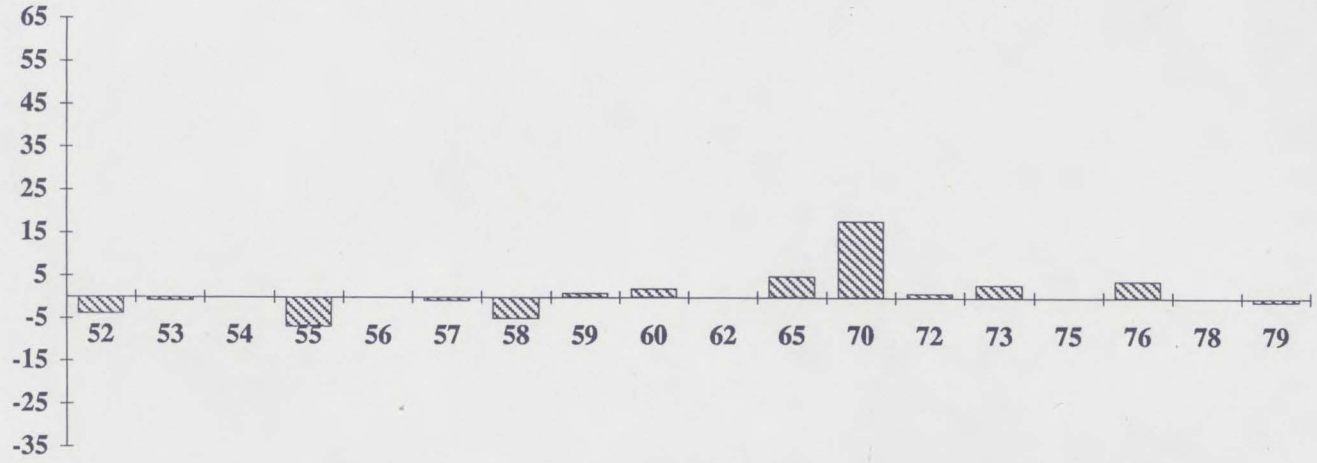


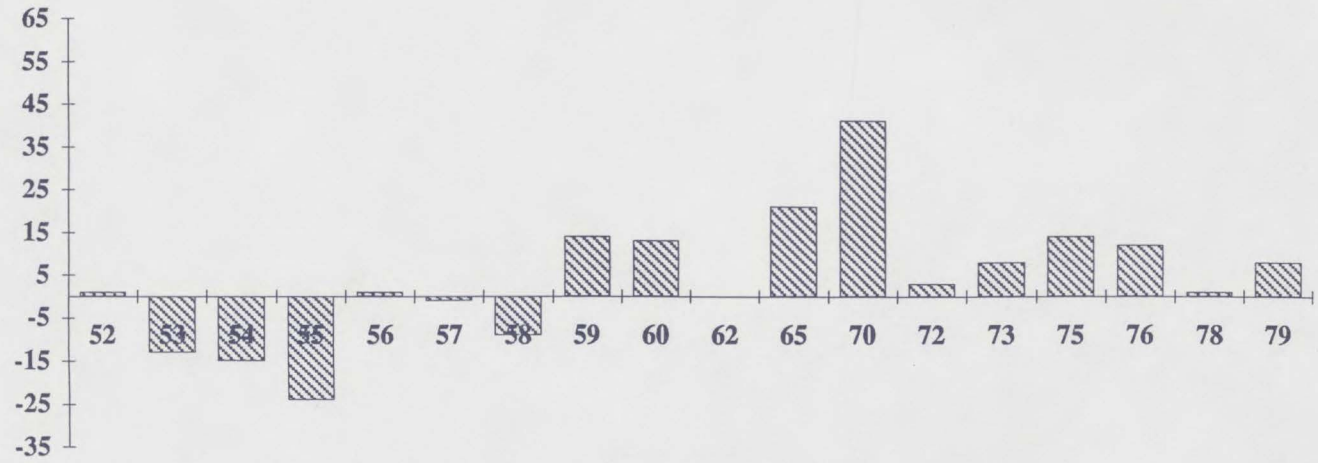
Figure 3.7 Change in Absolute Number of Retail and Service Establishments, 1960-1989, Using 1960 Group Codes, continued

Full Convenience Centers (N=2)



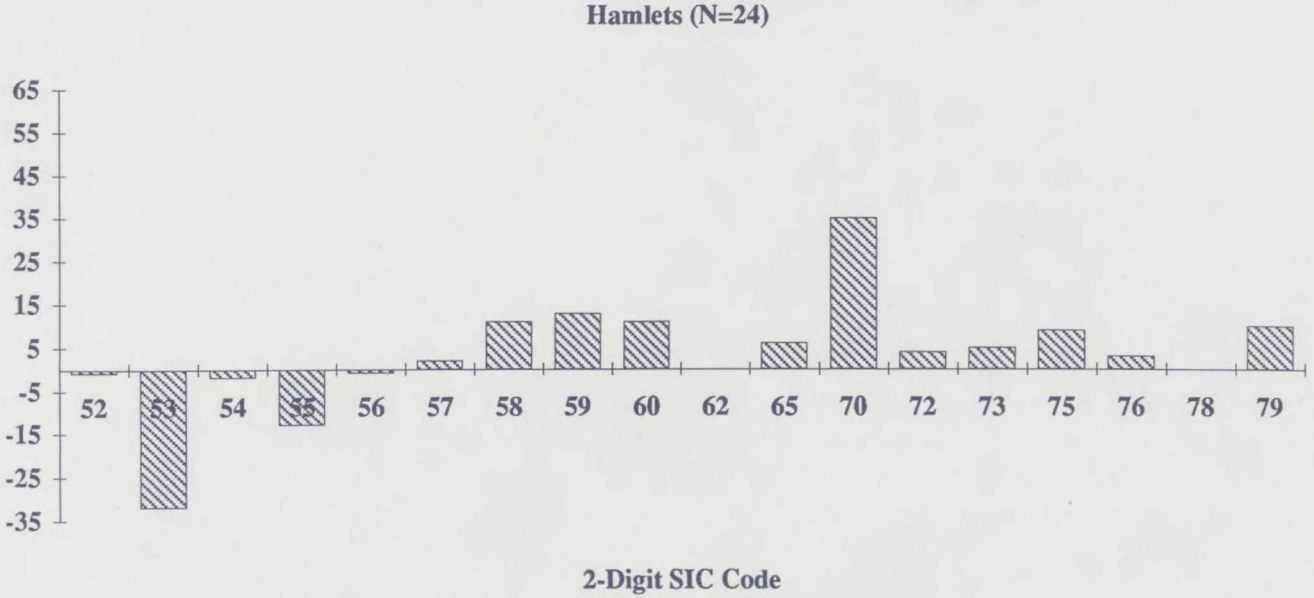
2-Digit SIC Code

Minimum Convenience Centers (N=15)



2-Digit SIC Code

Figure 3.7 Change in Absolute Number of Retail and Service Establishments, 1960-1989, Using 1960 Group Codes, continued



Findings

Some of the general patterns observed in the multi-state region are repeated here in this northwestern section of Wisconsin. These include greater consolidation of enterprises into the larger trade centers, greater reliance on service industries rather than retail and manufacturing, and weakening of the trade functions in the hamlets and minimum convenience centers. The future of the smaller centers is more dependent now on services than on retail. The characteristics of the underlying economic base of individual towns, however, produce sometimes divergent trends. For example, Ashland, Hayward, and Rice Lake are all level 3 complete shopping centers, but Ashland has fared poorly, Hayward has blossomed and expanded its trade function, and Rice Lake has held on.

The trade center hierarchy has changed very little over the past thirty years, with only two places moving a level, and this was *up—not down*. The service and tourist industries were responsible for the shifts.

Total population of the area has increased, principally during the 1970s, but also modestly during the 1980s. The composition of the population has changed, with a smaller farm population and with more elderly and fewer school-aged children.

This case study area has been shielded from major population and business losses by diversification of the local economies on which trade centers depend. Even the more agriculturally based counties of Barron and Washburn have capitalized on their lakes and scenic areas for tourism and second homes. New wood processing plants in Sawyer County and growth of the recreation industry have turned Hayward into a far stronger complete shopping center than was the case in 1960.

A disturbing factor, however, is the extent to which some smaller centers have their economic fortunes linked to a single enterprise. This may be a large employer such as Jerome Foods, a turkey processing plant in the city of Barron, or a relatively small employer such as the Ford dealership in Exeland, which is a minimum convenience center in Sawyer County. In both cases, city residents and city officials are aware of their dependence on one employer and the harsh consequences to the community if these firms were to move out. Indeed, Cumberland, which lost a major employer when the Stella cheese factory moved away from the city, saw the snowball effect almost immediately with the loss of a branch clothing store whose main business is in Barron.

CHAPTER 4. CONCLUSIONS

This detailed look at three subregions in the Upper Midwest reinforces the seven-state regional study's general conclusion that, even though the trade center hierarchy has remained stable over the last thirty years, the smaller communities are more fragile than they were in 1960. In all three case study areas, very few trade centers moved levels within the hierarchy. Nevertheless, the communities at the bottom four levels lost their breadth of commercial enterprises, particularly in the traditional retailing sector.

The one major finding of the regional study which this micro analysis did not reinforce was that smaller communities have become more similar to larger communities in their mix of industries. In the case study areas, it was the opposite. Small cities are less similar to large centers in 1989 than they were in 1960, primarily because the smaller centers have lost so many general merchandise and apparel outlets. Many small retail stores have closed in small towns as larger retail stores have opened in bigger communities. In fact, the smaller centers in these subregions are, if anything, weaker than those in the seven-state region as a whole.

Still, the small communities continue to survive. People are more mobile today and they can and do drive much further to work and to shop. All across the Upper Midwest communities have developed much more complex interrelationships as people commute longer distances. The fieldwork in these case studies begins to document these more diverse shopping patterns, specialization and agglomeration in a way not illustrated by the number of establishments alone.

Indeed, the case studies offer more insight into the functional changes that have occurred at different levels of the hierarchy and the reasons for them than the regional study's analysis could because of its use of Dun and Bradstreet data on the number of firms. The primary goal of both the large regional study and the case studies was to describe change and see if we could make generalizations about such change. The case studies show that the scale of analysis does make a difference, emphasizing the uniqueness, and sometimes randomness, of change at the individual community level.

The case studies prove that change between 1960 and 1989 did not occur in a regular linear fashion. Because the case studies examine data for more than the two time points of 1960 and 1989, there was more opportunity to explore causality and offer future scenarios for the region. The case studies show that the 1960s and 1970s were boom years, followed by a sharp economic decline in the 1980s when world grain prices declined, coal and oil production declined in Montana, and iron ore production declined on the Mesabi Range, spilling its effects into northwestern Wisconsin's exporting and manufacturing areas.

The case studies also illustrate how it is the specific nature of the local economic base and not the trade center class itself which defines the type of change occurring at the lowest levels. The smallest communities with economic bases specializing in agriculture and mineral extraction suffered the most severe loss of trade functions. This was particularly true in north-central Iowa and southeastern Montana. Communities in northwestern Wisconsin were able to moderate the ups and down in economic vitality by promoting tourism and diversifying within the service economy.

The case studies also show that, although a general pattern prevails, there is much diversity within trade center levels and individual communities may buck the larger trends. In Montana, two complete shopping centers fared quite differently—Miles City thrived, while Glendive declined. In Iowa, the secondary regional center, Fort Dodge, lost out to the smaller complete shopping center, Webster City, because Fort Dodge relied heavily on an agriculturally-dependent industry. Individuals continue to make a big difference in single

communities such as Woolstock, Iowa or Exelund, Wisconsin, where entrepreneurs market to an unexpectedly large clientele.

Additional data on number of jobs and number of jobs per establishment are extremely valuable in understanding the nature of change in smaller communities. This additional information emphasizes the vulnerability of the lowest three classes of trade centers—hamlets, minimum and full convenience centers—within the regional economic system.

The very fragility of the three bottom levels increases the importance of a key issue posed in the regional study—the value placed by society at large on the human resources of the region's smaller places. It is evident from these case studies that the communities support highly valued lifestyles. In addition, adaptation to changed economic systems can be made through local planning and individual entrepreneurs. Loss of trade functions does not necessarily lead to loss of community.

APPENDIX A. DETAILED DATA FOR IOWA CASE STUDY

Table A.1 Farm Population by County, 1950-1980

	1950		1960		1970		1980	
County	Farm	% Farm	Farm	% Farm	Farm	% Farm	Farm	% Farm
Calhoun	7,753	46%	6,767	42%	4,353	30%	3,808	28%
Hamilton	8,035	41%	6,833	34%	5,219	28%	3,451	19%
Humboldt	5,932	45%	5,392	41%	4,063	32%	2,892	24%
Pocahontas	8,335	54%	6,805	48%	4,886	38%	3,705	33%
Webster	9,933	22%	8,238	17%	6,299	13%	4,289	9%
Wright	7,848	40%	6,720	35%	5,105	30%	3,312	20%
Case Study Area	*47,836*	*37%*	*40,755*	*31%*	*29,925*	*24%*	*21,457*	*18%*
Iowa	**782,650**	**30%**	**662,239**	**24%**	**512,371**	**18%**	**391,070**	**13%**

Table A.2 Employment Trends by County

CALHOUN	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	253	172	212	171
Mfg.	101	123	313	237
Wholesale	154	194	394	281
Retail	453	521	566	430
FIRE	84	110	135	142
Services	234	417	574	752
Ag., min., nec.	6	57	78	13
Totals	*1,285*	*1,594*	*2,272*	*2,026*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	20%	11%	9%	8%
Mfg.	8%	8%	14%	12%
Wholesale	12%	12%	17%	14%
Retail	35%	33%	25%	21%
FIRE	7%	7%	6%	7%
Services	18%	26%	25%	37%
Ag., min., nec.	0%	4%	3%	1%

HAMILTON	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	243	301	416	282
Mfg.	1,174	1,590	1,652	2,287
Wholesale	193	201	703	650
Retail	827	1,113	1,159	1,032
FIRE	122	177	214	186
Services	272	434	628	879
Ag., min., nec.	106	121	51	36
Totals	*2,937*	*3,937*	*4,823*	*5,352*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	8%	8%	9%	5%
Mfg.	40%	40%	34%	43%
Wholesale	7%	5%	15%	12%
Retail	28%	28%	24%	19%
FIRE	4%	4%	4%	3%
Services	9%	11%	3%	16%
Ag., min., nec.	4%	3%	1%	1%

Table A.2 Employment Trends by County, continued

HUMBOLDT	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	247	310	364	215
Mfg.	332	354	493	529
Wholesale	96	136	388	255
Retail	446	544	680	593
FIRE	71	80	157	147
Services	146	201	373	453
Ag., min., nec.	88	55	30	33
Totals	*1,426*	*1,680*	*2,435*	*2,225*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	17%	18%	15%	10%
Mfg.	23%	21%	20%	24%
Wholesale	7%	8%	14%	11%
Retail	31%	32%	28%	27%
FIRE	5%	5%	6%	7%
Services	10%	12%	15%	20%
Ag., min., nec.	6%	3%	1%	20%

POCAHONTAS	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	220	210	213	104
Mfg.	239	511	437	459
Wholesale	263	275	350	361
Retail	403	514	530	534
FIRE	56	85	114	106
Services	149	215	452	435
Ag., min., nec.	64	73	87	14
Totals	*1,394*	*1,883*	*2,183*	*2,013*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	16%	11%	10%	5%
Mfg.	17%	27%	20%	23%
Wholesale	19%	15%	16%	18%
Retail	29%	27%	24%	27%
FIRE	4%	5%	5%	5%
Services	11%	11%	21%	22%
Ag., min., nec.	5%	4%	4%	1%

Table A.2 Employment Trends by County, continued

WEBSTER	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	980	1,589	1,855	1,405
Mfg.	3,668	5,049	4,206	2,394
Wholesale	1,251	1,150	1,841	1,056
Retail	2,226	3,507	3,854	3,558
FIRE	542	686	632	585
Services	2,032	2,824	3,891	3,951
Ag., min., nec.	181	164	141	144
Totals	*10,880*	*14,969*	*16,420*	*13,093*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	9%	11%	11%	11%
Mfg.	34%	34%	26%	18%
Wholesale	11%	8%	11%	8%
Retail	20%	23%	23%	27%
FIRE	5%	5%	4%	4%
Services	19%	19%	24%	30%
Ag., min., nec.	2%	1%	1%	1%

WRIGHT	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	349	510	834	655
Mfg.	577	790	849	1,109
Wholesale	194	212	593	329
Retail	727	782	852	792
FIRE	104	139	228	258
Services	236	356	579	719
Ag., min., nec.	26	30	33	33
Totals	*2,213*	*2,819*	*3,968*	*3,895*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	16%	18%	21%	17%
Mfg.	26%	28%	21%	28%
Wholesale	9%	8%	15%	8%
Retail	33%	28%	21%	20%
FIRE	5%	5%	6%	7%
Services	11%	13%	15%	18%
Ag., min., nec.	1%	1%	1%	1%

Table A.3 Employment Trends for the Case Study Area and Iowa

CASE STUDY AREA	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	2,292	3,092	3,894	2,832
Mfg.	6,091	8,417	7,950	7,015
Wholesale	2,151	2,168	4,219	2,932
Retail	5,082	6,981	7,641	6,939
FIRE	979	1,277	1,480	1,424
Services	3,069	4,447	6,497	7,189
Ag., min., nec.	471	500	420	273
Totals	*20,135*	*26,882*	*32,101*	*28,604*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	11%	12%	12%	10%
Mfg.	30%	31%	25%	25%
Wholesale	11%	8%	13%	10%
Retail	25%	26%	24%	24%
FIRE	5%	5%	5%	5%
Services	15%	17%	20%	25%
Ag., min., nec.	2%	2%	1%	1%

IOWA	Number of Jobs			
	1962	1970	1980	1987
Constr./Transp.	57,000	72,757	94,394	79,709
Mfg.	164,274	214,029	257,944	204,099
Wholesale	44,329	49,656	77,382	69,058
Retail	118,828	161,832	204,607	206,285
FIRE	32,453	43,194	62,791	69,646
Services	80,171	121,861	196,529	237,235
Ag., min., nec.	8,704	11,558	12,726	8,656
Totals	*505,759*	*674,887*	*906,373*	*874,688*

	Mixes			
	1962	1970	1980	1987
Constr./Transp.	11%	11%	10%	9%
Mfg.	32%	32%	28%	23%
Wholesale	9%	7%	9%	8%
Retail	23%	24%	23%	24%
FIRE	6%	6%	7%	8%
Services	16%	18%	22%	27%
Ag., min., nec.	2%	2%	1%	1%

Table A.4 Change in Population by Trade Centers, 1950-1990

Trade Center 1989	Trade Center	1950	Change 1950-1960	1960	Change 1960-1970	1970	Change 1970-1980	1980	Change 1980-1990	1990	Change 1960-1990
2	Fort Dodge	25,115	13%	28,399	10%	31,263	-6%	29,423	-12%	25,840	-9%
3	Webster City	7,611	12%	8,520	0%	8,488	1%	8,572	-8%	7,884	-7%
4	Belmond	2,169	16%	2,506	-6%	2,358	6%	2,505	-1%	2,484	-1%
4	Clarion	3,150	3%	3,232	-8%	2,972	3%	3,060	-12%	2,703	-16%
4	Eagle Grove	4,176	5%	4,381	2%	4,489	-4%	4,324	-16%	3,615	-17%
4	Humboldt	3,219	25%	4,031	16%	4,665	3%	4,794	-7%	4,436	10%
4	Lake City	2,308	-8%	2,114	-10%	1,910	5%	2,006	-8%	1,839	-13%
4	Pocahontas	1,949	3%	2,011	16%	2,338	1%	2,352	-12%	2,074	3%
4	Rockwell City	2,333	-1%	2,313	4%	2,396	-5%	2,276	-13%	1,978	-14%
5	Dayton	793	3%	820	11%	909	4%	941	-13%	814	-1%
5	Gowrie	1,052	7%	1,127	9%	1,225	-11%	1,089	-6%	1,022	-9%
5	Jewell	973	14%	1,113	4%	1,152	-1%	1,145	-3%	1,106	-1%
5	Laurens	1,556	16%	1,799	0%	1,792	-10%	1,606	-4%	1,538	-15%
5	Manson	1,622	10%	1,789	11%	1,993	-3%	1,924	-4%	1,838	3%
5	Rolfe	997	-18%	819	-6%	767	4%	796	-9%	721	-12%
6	Bode	492	-13%	430	-13%	372	9%	406	-17%	335	-22%
6	Dows	948	-7%	882	-12%	777	-1%	771	-14%	660	-25%
6	Farnhamville	399	3%	409	-4%	393	17%	461	-10%	414	1%
6	Fonda	1,120	-8%	1,026	-4%	980	-12%	863	-15%	731	-29%
6	Gilmore City	746	-8%	688	11%	766	-18%	626	-11%	560	-19%
6	Goldfield	665	3%	682	6%	722	9%	789	-11%	703	3%
6	Havelock	307	-6%	289	-14%	248	13%	279	-22%	217	-25%
6	Lehigh	881	-4%	846	-13%	739	-12%	654	-18%	534	-37%
6	Livermore	615	-11%	545	-6%	510	-4%	490	-12%	429	-21%
6	Lohrville	698	-6%	653	-15%	553	-6%	521	-13%	453	-31%
6	Palmer	296	-8%	271	-3%	264	9%	288	-38%	179	-34%
6	Pomeroy	868	-6%	816	-6%	765	17%	895	-15%	761	-7%
6	Renwick	474	1%	477	-10%	429	-4%	410	-30%	287	-40%
6	Stanhope	420	10%	461	5%	482	2%	492	-36%	314	-32%
6	Stratford	673	4%	703	1%	710	14%	806	-16%	680	-3%
6	Williams	519	-6%	490	-7%	456	-10%	410	-10%	368	-25%
7	Badger	301	13%	340	37%	465	40%	653	-13%	569	67%
7	Barnum	193	-20%	154	-5%	147	35%	198	-12%	174	13%
7	Blairsburg	257	12%	287	0%	287	0%	288	-7%	269	-6%

Table A.4 Change in Population by Trade Centers, 1950-1990, continued

Trade Center 1989	Trade Center	1950	Change 1950-1960	1960	Change 1960-1970	1970	Change 1970-1980	1980	Change 1980-1990	1990	Change 1960-1990
7	Bradgate	188	-12%	166	-22%	130	16%	151	-18%	124	-25%
7	Burnside	uninc		uninc		uninc		uninc		uninc	
7	Callender	387	-7%	358	18%	421	6%	446	-15%	378	6%
7	Clare	179	37%	245	2%	249	-8%	229	-36%	146	-40%
7	Dakota City	637	11%	706	6%	746	44%	1,072	-5%	1,022	45%
7	Duncombe	378	-6%	355	18%	418	21%	504	-3%	488	37%
7	Galt	117	-36%	75	-33%	50	20%	60	-28%	43	-43%
7	Harcourt	303	-12%	268	14%	305	14%	347	-12%	306	14%
7	Hardy	139	-21%	110	-34%	73	-1%	72	-56%	32	-71%
7	Jolley	195	-38%	120	-7%	112	-19%	91	-25%	68	-43%
7	Kamrar	261	3%	268	-9%	243	-7%	225	-10%	203	-24%
7	Knierim	133	15%	153	-14%	131	-5%	125	-50%	63	-59%
7	Moorland	248	13%	281	-4%	269	-4%	257	-19%	209	-26%
7	Otho	uninc		593	-2%	581	19%	692	-24%	529	-11%
7	Ottosen	127	-28%	92	1%	93	-1%	92	-42%	53	-42%
7	Rowan	304	-10%	273	-15%	231	12%	259	-27%	189	-31%
7	Rutland	225	-2%	221	-3%	215	-24%	163	-9%	149	-33%
7	Somers	217	-6%	203	-3%	197	12%	220	-27%	161	-21%
7	Thor	271	-14%	234	-9%	212	-6%	200	3%	205	-12%
7	Varina	144	13%	162	-14%	140	-13%	122	-16%	102	-37%
7	Vincent	193	-10%	173	18%	204	1%	207	-13%	180	4%
7	Woolstock	255	5%	269	-17%	222	6%	235	-37%	148	-45%

Table A.5 Number of Iowa Survey Respondents by Type of Business and Industry Category

Type of Business	SICs	Number of Establishments
Construction	15-18	13
Manufactures	20-39	17
Transportation/Communications	41, 42, 44-49	5
Agricultural Implement Dealers	5083	2
All Other Wholesale	50-51	4
Building Materials and Garden Supplies	52	5
General Merchandise	53	1
Food Stores	54	1
Auto Dealers and Service Stations	55	9
Apparel and Accessories	56	3
Furniture and Home Furnishings	57	4
Eating and Drinking	58	4
Miscellaneous Retail	59	10
Health, Educ. Legal, Social and Eng. Services	80, 81, 82, 83, 87	5
All Other Services	60-67, 70-79	25

Industry Category	Number of Establishments
Retail	37
Services	30
Manufacturers	17
Construction	13
Wholesale	6
Transportation/Communications	5

APPENDIX B. DETAILED DATA FOR WISCONSIN CASE STUDY

Table B.1 Farm Population by County, 1950-1980

	1950		1960		1970		1980	
County	Farm	% Farm	Farm	% Farm	Farm	% Farm	Farm	% Farm
Ashland	4,114	21%	1,902	11%	1,400	8%	703	4%
Barron	16,184	47%	11,946	35%	8,821	26%	6,087	16%
Bayfield	6,284	46%	3,628	30%	2,104	18%	589	4%
Sawyer	3,748	36%	2,270	24%	976	10%	525	4%
Washburn	4,773	41%	3,027	29%	1,981	19%	798	6%
Case Study Area	*35,103*	*39%*	*22,773*	*27%*	*15,282*	*18%*	*8,702*	*9%*
Wisconsin	**725,234**	**21%**	**553,348**	**14%**	**415,206**	**9%**	**282,722**	**6%**

Table B.2 Change in Population by Trade Centers, 1950-1990

Trade Center 1989	Trade Center	1950	Change 1950-1960	1960	Change 1960-1970	1970	Change 1970-1980	1980	Change 1980-1990	1990	Change 1960-1990
3	Ashland	10,640	-5%	10,132	-5%	9,615	-5%	9,115	-5%	8,676	-14%
3	Hayward	1,577	-2%	1,540	-5%	1,457	17%	1,698	12%	1,896	23%
3	Rice Lake	6,898	6%	7,303	0%	7,278	6%	7,691	2%	7,826	7%
4	Barron	2,335	0%	2,338	0%	2,337	11%	2,595	10%	2,848	22%
4	Cumberland	1,872	-1%	1,860	-1%	1,839	8%	1,983	9%	2,163	16%
4	Spooner	2,597	-8%	2,398	2%	2,444	-3%	2,365	4%	2,462	3%
5	Chetek	1,585	9%	1,729	-6%	1,630	18%	1,931	1%	1,951	13%
5	Winter	uninc		uninc		uninc		376	2%	383	
6	Almena	406	-2%	398	6%	423	24%	526	18%	622	56%
6	Bayfield	1,153	-16%	969	-10%	874	-11%	778	-30%	546	-44%
6	Birchwood	502	-14%	433	-9%	394	11%	437	1%	443	2%
6	Butternut	522	-4%	499	-9%	453	-3%	438	-5%	416	-17%
6	Cable	250	5%	262	7%	281	-19%	227		**	
6	Cameron	963	2%	982	-9%	893	25%	1,115	14%	1,273	30%
6	Clayton	350	-7%	324	-6%	306	39%	425	6%	450	39%
6	Dallas	370	8%	401	-10%	359	33%	477	-13%	416	4%
6	Exeland	211	1%	214	-12%	189	16%	219	-18%	180	-16%
6	Glidden	uninc		uninc		uninc		uninc		uninc	
6	Iron River	uninc		uninc		uninc		uninc		uninc	
6	Mason	140	-29%	100	19%	119	-14%	102	-57%	44	-56%
6	Mellen	1,306	-9%	1,182	-1%	1,168	-10%	1,046	-14%	903	-24%
6	Minong	357	-3%	348	21%	420	33%	557	-6%	521	50%
6	Sarona	uninc		uninc		uninc		uninc		uninc	
6	Shell Lake	954	6%	1,016	-9%	928	22%	1,135	2%	1,161	14%
6	Washburn	2,070	-8%	1,896	3%	1,957	6%	2,080	10%	2,285	21%
7	Barronett	uninc		uninc		uninc		uninc		uninc	
7	Brill	uninc		uninc		uninc		uninc		uninc	
7	Brule	uninc		uninc		uninc		uninc		uninc	
7	Canton	uninc		uninc		uninc		uninc		uninc	
7	Clam Lake	uninc		uninc		uninc		uninc		uninc	
7	Comstock	uninc		uninc		uninc		uninc		uninc	
7	Cornucopia	uninc		uninc		uninc		uninc		uninc	
7	Couderay	133	-15%	113	9%	123	-7%	114	-19%	92	-19%
7	Drummond	uninc		uninc		uninc		uninc		uninc	

Table B.2 Change in Population by Trade Centers, 1950-1990, continued

Trade Center 1989	Trade Center	1950	Change 1950-1960	1960	Change 1960-1970	1970	Change 1970-1980	1980	Change 1980-1990	1990	Change 1960-1990
7	Grand View	uninc		uninc		uninc		uninc		uninc	
7	Haugen	246	8%	265	-7%	246	2%	251	22%	305	15%
7	Herbster	uninc		uninc		uninc		uninc		uninc	
7	High Bridge	uninc		uninc		uninc		uninc		uninc	
7	La Pointe	uninc		uninc		uninc		uninc		uninc	
7	Marengo	uninc		uninc		uninc		uninc		uninc	
7	Mikana	uninc		uninc		uninc		uninc		uninc	
7	Port Wing	uninc		uninc		uninc		uninc		uninc	
7	Poskin	uninc		uninc		uninc		uninc		uninc	
7	Prairie Farm	343	24%	427	22%	519	-25%	387	25%	484	13%
7	Radisson	uninc		179	15%	206	36%	280	-15%	237	32%
7	Springbrook	uninc		uninc		uninc		uninc		uninc	
7	Stone Lake	uninc		uninc		uninc		uninc		uninc	
7	Trego	uninc		uninc		uninc		uninc		uninc	

Table B.3 Average Number of Business Establishments by Trade Center Class and Mix of Industry Categories for Wisconsin, 1960 and 1989

Average Number of Business Establishments by Trade Center Class,* 1960 and 1989

		Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services		Total Estabs.		Population
		1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1989
3	Complete shopping	1	4	31	55	27	39	7	17	20	34	138	121	2	3	29	72	255	344	13,765
4	Partial shopping	0	2	11	26	12	17	3	8	7	16	66	56	1	2	13	29	112	156	6,585
5	Full convenience	0	1	6	14	6	10	2	4	3	9	37	30	1	1	7	15	63	84	3,580
6	Minimum convenience	0	1	3	7	3	4	1	2	1	4	19	14	1	1	4	7	32	41	2,153
7	Hamlet	0	0	1	2	1	1	0	1	0	1	7	4	0	0	1	2	11	12	828

Mix of Industry Categories Within Each Trade Center Class,* 1960 and 1989 (in percents)

		Agr. Services		Construction		Manufactures		Trans./Comm.		Wholesale		Retail		Banks		Services	
		1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989	1960	1989
3	Complete shopping	0	1	12	16	11	11	3	5	8	10	54	35	1	1	11	21
4	Partial shopping	0	1	10	17	10	11	3	5	6	10	58	36	1	1	12	19
5	Full convenience	1	1	9	17	10	12	3	5	5	10	59	36	2	1	11	17
6	Minimum convenience	0	1	9	18	9	10	4	6	4	10	60	35	3	2	11	18
7	Hamlet	0	1	6	16	8	12	3	5	5	10	66	37	3	3	9	16

* Excludes primary and secondary regional centers.

APPENDIX C. STATISTICAL SOURCES USED IN CASE STUDIES

COUNTY POPULATION DATA

U.S. Department of Commerce, Bureau of the Census, *County and City Data Book*. Washington D.C.: Government Printing Office.

1967. Table 2 (IA: pp. 112, 122; MT: pp. 212, 222; WI: pp. 412, 422).
1972. Table 2 (IA: pp. 162, 174; MT: pp. 282, 294; WI: pp. 522, 534).
1983. Table B (IA: pp. 172-73, 186-87; MT: pp. 326-27, 340-41; WI: pp. 620-21, 634-35).

Preliminary 1990 census information from regional offices.

FARM POPULATION DATA

U.S. Department of Commerce, Bureau of the Census, *Census of the Population, Characteristics of the Population, Vol. II*. Washington D.C.: Government Printing Office.

1950. Table 10 (IA: p. 35; MT: p. 19; WI: p. 31).
1950. Table 49 (IA: Part 15, pp. 133, 135, 137-38; MT: Part 26, pp. 79-82; WI: Part 49, pp. 121, 124-25).

U.S. Department of Commerce, Bureau of the Census, *Census of the Population, General Social and Economic Characteristics*. Washington D.C.: Government Printing Office.

1960. Table 35 (IA: Part 17, pp. 166-67; MT: Part 28, pp. 84-85; WI: Part 51, p. 166).

U.S. Department of Commerce, Bureau of the Census, *County and City Data Book*. Washington D.C.: Government Printing Office.

1972. Table B (IA: pp. 160, 172, 184; MT: pp. 292, 304; WI: pp. 532, 544).
1983. Table B (IA: pp. 184, 198; MT: pp. 338, 352; WI: pp. 632, 646).

PLACE POPULATION DATA

U.S. Department of Commerce, Bureau of the Census, *Census of the Population, Characteristics of the Population, Vol. I*. Washington D.C.: Government Printing Office.

1960. Table 8 (IA: Part 17, pp. 23-28; MT: Part 28, p. 14; WI: Part 51, pp. 22-25).

1970. Table 6 (IA: Part 17, pp. 11-16; MT: Part 28, p. 10; WI: Part 51, pp. 11-14).
1980. Table 5 (IA: Part 17, pp. 30-35; MT: Part 28, p. 14; WI: Part 51, pp. 24-27).

Preliminary 1990 census information from regional offices.

AGE DATA

U.S. Department of Commerce, Bureau of the Census, *Census of the Population, Characteristics of the Population, Vol. I*. Washington D.C.: Government Printing Office.

1960. Table 16 (IA: p. 40; MT: p. 23; WI: p. 40).
1960. Table 27 (IA: Part 17, pp. 113-34; MT: Part 28, pp. 50-62; WI: Part 51, pp. 122-38).

U.S. Department of Commerce, Bureau of the Census, *County and City Data Book*. Washington D.C.: Government Printing Office.

1972. Table 2 (IA: pp. 162, 174; MT: pp. 282, 294; WI: pp. 522, 534).
1983. Table B (IA: pp. 172-73, 186-87; MT: pp. 326-27, 340-41; WI: pp. 620-21; 634-35).

U.S. Department of Commerce, Bureau of the Census, *Census of Population and Housing, 1990: Summary Tape File 1*. Washington D.C.: Government Printing Office.

1990. CENDATA.

EMPLOYMENT DATA

U.S. Department of Commerce, Bureau of the Census, *County Business Patterns*. Washington D.C.: Government Printing Office.

1962. Table 2 (IA: Part 5A, pp. 24, 41, 44, 63, 79-80, 84; MT: Part 9, pp. 107, 109-10, 116, 119-20, 123-24; WI: Part 4A, pp. 124-26, 181-82, 188).
1970. Table 2 (IA: Part 17, pp. 34, 55, 58, 81, 100, 106; MT: Part 28, pp. 22, 24-25, 32, 35, 37, 40; WI: Part 51, pp. 27-29, 97, 105).
1980. Table 2 (IA: Part 17, pp. 32, 57-58, 62, 91, 115-16, 122-23; MT: Part 28, pp. 19, 22-24, 33-34, 38-39, 41, 44-45; WI: Part 51, pp. 22-25, 114, 124-25).
1987. Table 2 (IA: Part 17, pp. 35, 65-66, 71, 105, 133-34, 141; MT: Part 28, pp. 19, 23-25, 37, 44, 47, 51-52; WI: Part 51, pp. 22-25, 135, 148).

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